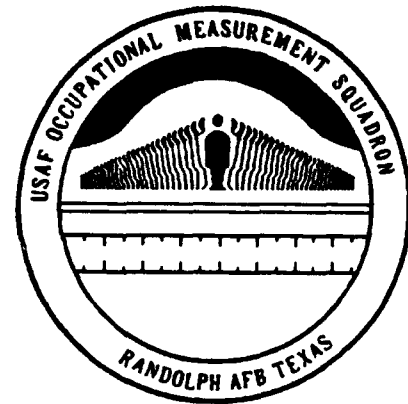




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OCCUPATIONAL SURVEY REPORT

AEROSPACE PHYSIOLOGIST

AFSCs 43AX, M11XY, AND M122XY
(FORMERLY AFSCs 916X, 149XA, AND 229XY)

AFPT 90-916-959

DECEMBER 1993

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OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
1550 5th STREET EAST
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PREFACE

This occupational survey report (OSR) presents the results of a detailed Air Force Occupational Survey of AFSCs 916X, 149XA, and 229XA, Aerospace Physiologist personnel. The project was requested by USAF School of Aerospace Medicine, Brooks AFB TX, in a letter by Colonel Kenneth R. Hart, Chief, Education Division, dated August 1990. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products upon which this report is based are available for use by operations and training officials.

The survey instrument was developed by Ms Joan M. Cofield, with computer support furnished by Ms Rebecca Hernandez. Administrative support was furnished by Mr Richard G. Ramos. Ms Cofield also analyzed the data and wrote the final report. This report has been reviewed and approved for release by Mr Gerald R. Clow, Chief, Management Applications Section, USAF Occupational Measurement Squadron.

Copies of this report are distributed to Air Staff sections, major commands, and other interested management and training personnel. Additional copies are available upon request to the USAF Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB Texas 78150-4449 (DSN 487-6623).

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SUMMARY

1. Survey Coverage: Air Force officers in the three AFSCs included within the Aerospace Physiologist utilization field were surveyed to obtain current data which will be used to assist USAF School of Aerospace Medicine and other training staff in making training and future manpower decisions.

2. Specialty Jobs: Two clusters containing four jobs and two independent jobs were identified in the job structure analysis. Although the Aerospace Physiologist officers perform many diverse functions, the focus of their worktime (46 percent) is spent mainly performing Specialized Aerospace Physiology Instructions, Training, and those associated duties involved with aerospace physiology and aviation human factors. An indepth analysis of other data, such as grade, MAJCOM, and time in utilization field groups, clearly supports all findings in the job structure analysis. These comparisons also reveal an orderly progression of task performance reflecting increased responsibility of duties within the usual migration to higher rank and higher level staff positions.

3. Analysis of AFSC Aerospace Physiological Groups: The analyses of the individual AFSCs 9161, 9166, 1495A, and 2295A, individually and as a whole, along with the overall background data, clearly indicate the task performance differences and similarities that occur across the three targeted AFSCs. The 1955A and 2295A Aerospace Physiologist officers focus the major portion of their job time performing training duties, 68 percent and 57 percent, respectively, and 31 percent and 43 percent, respectively, accomplishing management, supervisory, and other corresponding duties. The 916X officers, however, perform duties in Research, Development, Test, Evaluation, and Acquisition (RDTE&A) (9 percent), less worktime accomplishing training duties (47 percent), and 44 percent in management, supervisory, and other corresponding duties. These data comparisons pinpoint the similarities and differences in time spent by the rated and nonrated Aerospace Physiologist officers performing tasks in the 13 duties included in the USAFOMS Job Inventory (JI), as well as indicate the usual paygrade progression relationships between and within the utilization field.

4. Selected Background Information: Of interest to Air Staff, functional managers, and training managers are the data which respond to special interest and concerns of the Aerospace Physiologist personnel. Data were analyzed, examined, and incorporated with responses which were summarized from Aerospace Physiologist personnel in field interviews, USAF JI responses, and write-in comments. These areas are addressed in context and are discussed to a great extent throughout the occupational survey report (OSR) and, specifically, in the ANALYSIS OF SELECTED BACKGROUND DATA section.

Job Satisfaction: Job satisfaction indices within the 916X, 149XA, and 229XA Aerospace Physiologist DAFSCs are relatively high. The incumbents indicate that their jobs are interesting (91 percent), their talents are being utilized fairly well (62 percent), they are well satisfied with their sense of accomplishment (91 percent), and their perceived utilization of training indices shows a positive average of 60 percent. Responses to career progression were in

the medium high indices for the 916X officers (65 percent). The 916X officers also showed high indices in their utilization field plans, with 83 percent of the incumbents reporting they planned to remain in their respective field. It was not unexpected, considering the changes occurring Air Force-wide, that the rated officers were much more undecided about future plans and showed lower overall indices in both utilization field plans and career progression opportunities.

Adequacy of Specific AFSC Training: Overall, the responses proffered by the Aerospace Physiologist officers, in regard to their opinion of the 5-week Aerospace Physiology course curricula being more operationally oriented were in the extremely high "Positive" ranges (91 percent).

Sixty-five percent of the 78 respondents generally reported that they believed the 2-week Instructor Training Workshop prepared them for their major duties of instructing personnel in aerospace physiology and aviation human factors (916X - 65 percent; 1495A - 50 percent; 2295A - 100 percent).

Opinions regarding a specialized flight training course being helpful for Aerospace Physiologists to accomplish their jobs better also had extremely high "Positive" indices of 96 percent.

In regard to confidence level (time) of teaching after the 7-week tech school courses, the short timeframe and high confidence level of teaching aircrew members reported by the 13 rated members (100 percent each within 1 to 3 months) are not unexpected, considering their aviation expertise. The timeframes and confidence levels reported by the 916X officers varied greatly and were in relatively low ranges (1 to 3 months - 38 percent; 4 to 6 months - 29 percent; and 7 to 12 months - 22 percent).

5. *Training Analysis:* Analysis of the Course Training Standard (CTS) for B30BY9161-000, Aerospace Physiology course conducted at Brooks AFB TX, as compared with the occupational survey data, indicates that although all CTS elements were matched, a review of several subelements needs to be made by the training personnel at the resident tech school. USAFOMS recommends that the large number of not matched tasks, particularly those with high training emphasis ratings, be reviewed for inclusion in CTS or Plan of Instruction revisions or in future course development.

6. *AFR 36-1 Specialty Descriptions:* The duties and tasks performed by the targeted AFSCs correspond accurately with those listed in the respective AFR 36-1 Specialty Descriptions for the 916X, 149XA, and 229XA Aerospace Physiologist officers. Career progression was evident throughout all analysis groups. The scope of the lower ranking officers was evident in the types of tasks performed, as well as within the number of tasks performed and percent time spent on duties. As rank, experience, and time in current jobs increased, the officers generally reported spending greater percentages of their job time performing supervisory and managerial functions. The most senior incumbents do, however, perform a number of technical and teaching type tasks when the need arises, such as during hyperbaric and hypobaric chamber operations and specialized aerospace physiology classroom training requirements.

7. **Implications:** The indepth data analysis indicates that the Aerospace Physiologist officers are performing the duties and tasks according to their Specialty Standards, as well as following the policies and the standards of the Aerospace School of Medicine.

Because of the present changes being made throughout the Air Force, a clear, comprehensive career plan outlining the future needs and scope of duties for all members included within the utilization field (especially the rated members) should be developed and presented to the field in a timely manner.

The OSR data included within the current study can and should be used by Air Staff, functional managers, training managers, and other users to assist in making future mission and manpower decisions.

NOTE: This is the first survey of the Aerospace Physiologist officers. The August 1993 OSR data contained herein DO NOT include the same survey populations, nor the same AFSCs and duty statements of any related USAFOMS OSRs; therefore, no comparisons in kind to previous related USAFOMS field data or OSRs can or will be made.

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**OCCUPATIONAL SURVEY REPORT (OSR)
AEROSPACE PHYSIOLOGIST OFFICER PERSONNEL
(AFSCs 916X, 149XA, 229XA,
43AX, M11XXY, AND M122XY)**

INTRODUCTION

This is a report of the occupational survey of the Aerospace Physiologist officer personnel, AFSCs 916X, 149XA, and 229XA, completed by the Occupational Analysis Flight, USAF Occupational Measurement Squadron. The original request for the survey was made by Colonel Kenneth R. Hart, Chief, Education Division, USAF School of Aerospace Medicine, Brooks AFB TX in August 1990. There had been no previous occupational survey of this utilization field.

Utilization Field AFSCs

The 916X Aerospace Physiologist utilization field is comprised of three AFSCs:

| | |
|-----------------------|--|
| 9161-9166 43AX | Aerospace Physiologist (New AFSC Designator) |
| 1491A-1495A M11XXY | Physiological Support Officers Air Operations Officer - Pilot (New AFSC Designator) |
| 2291A-2295A M122XY | Physiological Support Officer Air Operations Officer - Navigator (New AFSC Designator) |

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) AFPT 90-916-959, dated September 1992. Since there had been no previous occupational survey of the AFSC 916X utilization field, a tentative task list was prepared by reviewing pertinent career

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ladder publications and directives, such as AFR 36-1 Specialty Descriptions, course training standards (CTSs) from the resident training school, as well as the corresponding enlisted JIs. Reviewing these documents provided the USAFOMS developer with a broad brush overview of the types of tasks performed by the AFSC 916X, 149XA, and 229XA officers.

This resultant tentative task list was refined and validated during a 3-day workshop with resident course instructors at the School of Aerospace Medicine at Brooks AFB TX. The preliminary JI was further refined and validated by 26 personal field reviews with subject-matter experts (SMEs) at the bases listed below.

HQ USAF/SAM provided USAFOMS with a list of recommended visitation sites from which the following selections were made to ensure coverage of a variety of MAJCOMs, AFSCs, and environments.

| <u>BASES</u> | <u>REASON FOR VISIT</u> |
|--------------------|--|
| Brooks AFB TX | Resident Tech School Centrifuge, Cockpit, and Equipment Integration Lab, Acquisition, Research, Hyperbaric And Hypobaric Chambers |
| Little Rock AFB AK | High Altitude Airdrop Mission Support (HAAMS) |
| Holloman AFB NM | Centrifuge Training |
| Travis AFB CA | Hypobaric Chamber |
| Beale AFB CA | Life Support Equipment, Pressure Suit |
| Lackland AFB TX | Wilford Hall Medical Center, Research Support, Development, Test and Evaluation Human and Animal Research Protocols |

The resultant field-validated JI contained a comprehensive listing of 828 tasks grouped under 13 duty headings, a biographical section, and a background section. Prior to printing, the final survey instrument was coordinated and approved during February 1992 by 10 Aerospace Physiologist Functional Managers of selected MAJCOMs and HQ USAF/SAM. No security problems were anticipated nor were found with the administration of the survey instrument.

The USAFOMS JI consists of three sections: (1) a BIOGRAPHICAL INFORMATION section where survey participants provide information about themselves; (2) a BACKGROUND INFORMATION section where survey respondents provide general information about their job;

and (3) a DUTY-TASK list section where respondents indicate the tasks they perform in their current job.

The USAF JI BIOGRAPHICAL and BACKGROUND sections include 28 questions. The BIOGRAPHICAL section requested data, such as name, SSAN, sex, grade, time in current job, total active federal military service (TAFMS), DAFSC, MAJCOM of assignment, etc. BACKGROUND questions include Armstrong Laboratory, Human Resources Directorate (AL/HRD) standardized questions (used in all USAFOMS inventories) regarding perceived job satisfaction and sense of accomplishment from their work, job utilization of talents, and utilization of Air Force training received.

AFSC-specific questions added by the Aerospace Physiologist staff include such topics as, opinion of the need to have more of an operational focus to the curricula of the 5-week Aerospace Physiology course, opinion of the 2-week Instructor Training Workshop included at the end of the Aerospace Physiology course, confidence level (time) for teaching aircrew members after the Aerospace Physiology course, use of and type of training received on computers, how often the AFSC members fly in military aircraft during a 6-month period, and AFSC utilization field plans and perceived career progression.

The DUTY-TASK list section consisted of 828 tasks grouped under 13 duty titles. These tasks represent the types of tasks performed by the respondents of the three targeted AFSCs.

Survey Administration

On 22 January 1993, Military Personnel Flights (MPFs) at designated operational units worldwide were shipped a mailing containing the AFSC 916X, 149XA, and 229XA USAF JIs, letter of administration instructions, and a mailing list containing the name, grade, SSAN, duty AFSC, location, and MAJCOM of each Aerospace Physiologist officer to be surveyed at their base. From January 1993 through April 1993, the MPFs administered the survey instrument to the designated military incumbents.

Each officer who completed the survey instrument first filled out the BIOGRAPHICAL and BACKGROUND information section. The respondents were then asked to read each task in the DUTY-TASK section and place a check beside each task they perform in their current job. After checking all tasks performed, each member then rated each of the marked tasks on a 9-point scale showing the relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount of time spent) through 9 (very large amount of time spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of their time spent on their job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time for each task. This formula provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

On 22 January 1993, 106 USAF Aerospace Physiologist JIs were mailed to AFSC 916X, 149XA, and 229XA personnel at the 36 designated bases worldwide, which represented 100 percent of the eligible officer population listed in the current AFMPC computer mailing list.

To qualify for participation in this survey, the respondent **MUST HAVE**:

a DAFSC of 9161, 9166, 1491A, 1495A, 2291A, or 2295A,

held their DAFSC for at least 6 weeks, and

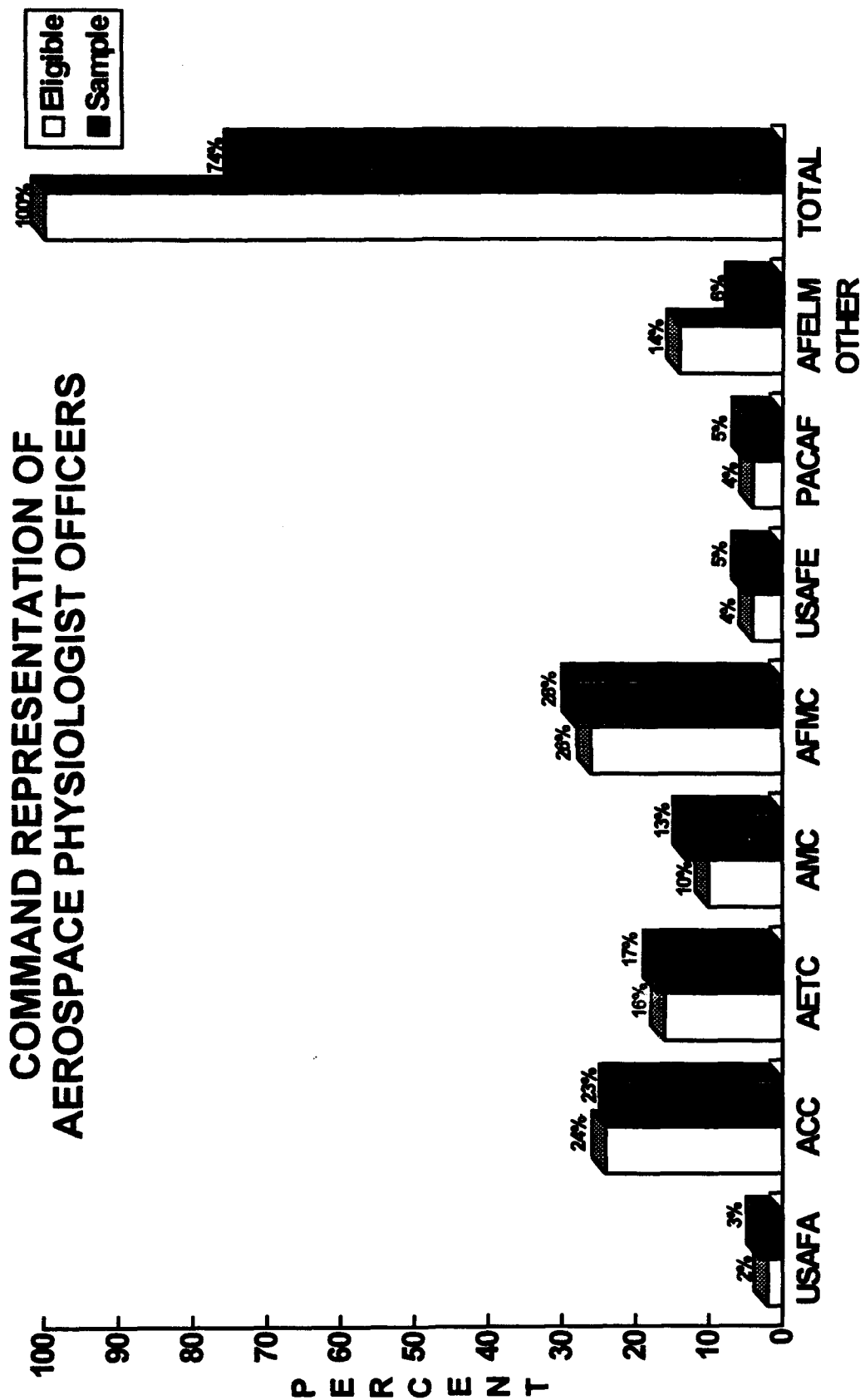
been working in their present job for at least 6 weeks.

HQ USAFSAM/FP concurred with USAFOMS' request to close the survey administration with the return rate listed on 20 April 1993. Eighty-six JIs (81 percent of mailed) had been returned by that date. Of those surveys returned, 78 usable JIs (74 percent) are included in the present survey sample and are the basis for the data contained herewith.

Figures 1 through 3 illustrate general characteristics of the 78 respondents based on background information for the total sample. Figure 1 illustrates the command representation of the participating 916X, 1495A, and 2295A Aerospace Physiologist officer sample. Twenty-eight percent of the population sample are in AFMC, followed by AETC at 17 percent and AMC at 13 percent. Overseas (OS) personnel are represented by USAFE and PACAF at 5 percent each. Figure 2 provides distribution of personnel by AFSC. This figure illustrates that the 65 DAFSC 916X respondents (83 percent) are the largest percentage of the study sample, as well as being representative of the largest number of assigned DAFSC 916X personnel. Figure 3 illustrates the paygrade distribution of the Aerospace Physiologist personnel, which indicates that the 26 captains represent the largest paygrade group or 33 percent of the survey sample.

These three figures compare and illustrate the survey sample with the command representation, paygrades, DAFSCs, and the population characteristics of the utilization field as a whole and within each DAFSC. This survey sample is, therefore, representative of commands and the AFSC 916X, 149XA, and 229XA Aerospace Physiologist officers, and is adequate to allow for valid inferences regarding the presented data.

FIGURE 1

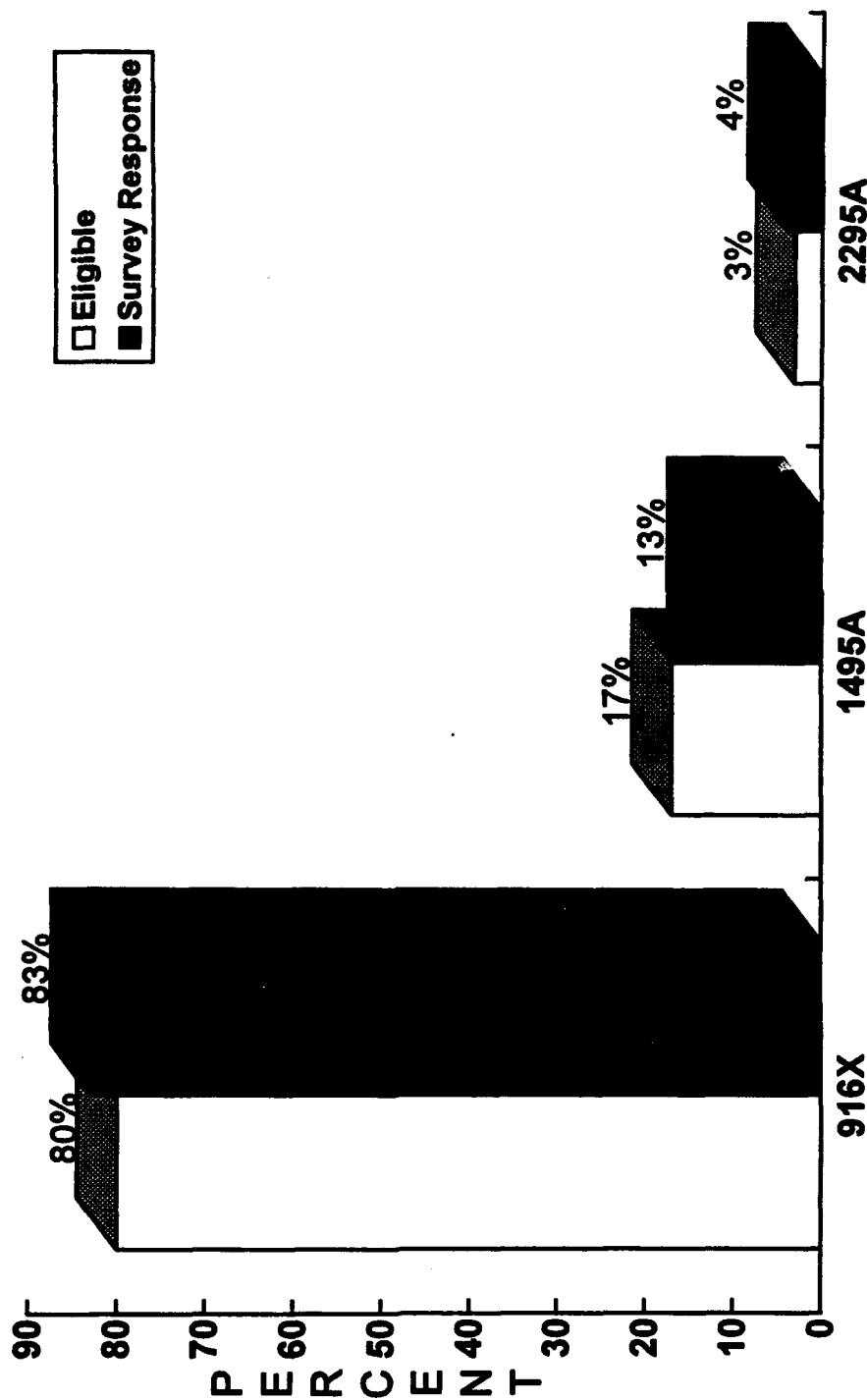


Eligible strength as of Feb 92 (N=106)

Survey respondents (N=78)

NOTE: Percentages may not add to 100% due to rounding or nonresponse

FIGURE 2
DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICERS
BY DAFSC



Eligible strength as of Feb 92 (N=106)
 Survey respondents (N=78)
 NOTE: Percentages may not add to 100% due to rounding or nonresponse

FIGURE 3
DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICERS
BY PAYGRADE



Eligible strength as of Feb 92 (N=106)
 Survey respondents (N=78)
 NOTE: Percentages may not add to 100% due to rounding or nonresponse

TASK FACTOR ADMINISTRATION

Training Emphasis (TE) Data

In addition to completing the Aerospace Physiologist JI, selected personnel completed a second JI booklet asking for their individual perceptions of TE ratings. These TE booklets were processed separately from the JIs completed by all other AFSC 196X, 149XA, and 229XA officers. The information gained from the TE booklets is used in a number of different analyses discussed in more detail within the report.

Individuals completing TE booklets were asked to rate tasks on a 10-point scale (from no training required to an extremely high amount of training required). Training emphasis is a rating of which tasks require structured training for first-assignment personnel. Structured training is generally construed to be training provided at resident technical schools, field training detachments, mobile training teams, formal OJT, or any other ORGANIZED training method.

A total of 45 TE booklets were sent to Aerospace Physiologist personnel. The officers who received the booklets were hand selected by the USAFOMS analyst to produce a cross-selection of DAFSCs and grades; (colonel - 4, lieutenant colonel - 7, major - 13, and captain - 21). Of the 45 booklets that were mailed, 26 TE booklets were returned, of which 22 were usable and comprise the overall usable return rate of 49 percent.

If all raters were in complete accord on which tasks are important for first-assignment training, the interrater reliability would be 1.0. Since a large number of tasks in the Aerospace Physiologist Occupational Survey were distinctly performed by these officers, there were a number of tasks with minimal responses. This was not unexpected, since members in this AFSC perform a number of tasks which are clearly different. The TE ratings are based on the total 828 tasks, which allowed for more realistic TE values being assigned to tasks and were more reflective of the tasks actually performed by the Aerospace Physiologists.

TE data provided by the 22 Aerospace Physiologist officer SMEs yielded an average of 1.42, with a standard deviation of 1.51. When a given task has an assigned TE rating greater than or equal to the sum of the mean value plus one standard deviation, in this case 2.93, those tasks merit strong consideration for inclusion in some form of structured training for first-assignment officers. There are 88 (of 828) tasks that meet this above average-to-high rating mean criteria.

When used in conjunction with the primary criterion of percent members performing, TE ratings can provide insight into first-assignment officer training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting AFS first-assignment jobs. TE data may also be used to rank order tasks which Aerospace Physiologist officers consider the most important for first-assignment officers to know. Appendix A presents representative tasks that Aerospace Physiologist officer SMEs believe are important to be included in structured training for first-assignment officers and also compares percent members

performing data for first-job and first-assignment officers. Table 1 presents a sampling of representative tasks high in TE ratings.

Ten questions were included in the TE booklet background section requesting each respondent's grade, DAFSC, and time in utilization field. Also included were four questions proffered by USAFSAM/FP, asking each officer's opinion of such data as the resident Aerospace Physiology courses, and in what time period the officers believed they were confident of their teaching abilities.

The majority of the officers who provided usable responses to the TE booklets were captains and majors. All but one respondent (AFSC 1495A) held a 916X DAFSC and had been in their career field from 1 to 96 months.

The responses to the four background questions included in the TE booklet indicate that these members were almost equally divided as to whether the 2-week Instructor Training Workshop, included in the resident course at Brooks AFB TX, prepares them for classroom instructor duty (46 percent Yes to 50 percent No). Almost all members agreed (85 percent) that the 5-week Aerospace Physiology curricula should be more operationally oriented. The 22 members who responded to the background questions believed that Aerospace Physiologists should attend a specialized flight training course (96 percent), while almost half (46 percent) said they believed they were confident to teach within 6 months (five of these respondents stated they still do not feel confident to teach).

COMPARISON OF SURVEY DATA WITH AFR 36-1 SPECIALTY DESCRIPTIONS

Occupational survey data were compared to the three AFR 36-1 Specialty Descriptions for the Aerospace Physiologist Officer (AFSC 9161-9166), dated 1 January 1989; Air Operations Officer, Pilot (AFSC 1491A-1495A) - Physiological Support Officer, dated 1 April 1991; and Air Operations officer, Navigator (AFSC 2291A-2295A) - Physiological Support officer, dated 1 January 1989. Each AFR 36-1 denotes a broad brush view of the types of duties and tasks performed by each specialty.

Generally, the AFR 36-1 officer Air Force Specialty descriptions for the three AFSCs reflect the existent personnel in the Aerospace Physiologist utilization field. The following job structure analysis predominantly describes the specialty descriptions of these officers. The 916X officers are represented in all six jobs; however, the 149XA and 229XA officers are primarily involved in Specialized Aerospace Physiological Instructions, Training, and Management and Supervisory tasks and duties (four jobs).

Since references are made throughout the OSR to duties performed and the amount of time spent performing such duties and tasks, mini-job descriptions of each of the AFSCs are reported below:

TABLE 1

**AEROSPACE PHYSIOLOGIST OFFICERS
REPRESENTATIVE TASKS HIGH IN TRAINING EMPHASIS RATINGS**

| <u>TASKS</u> | <u>TNG EMP</u> |
|---|--------------------|
| E457 Conduct classroom instruction on effects of elevated partial pressures | 6.86 |
| E453 Conduct classroom instruction on compression physics, such as hyperbarics and other hyperbaric technology topics | 6.18 |
| G511 Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAL) flights | 5.64 |
| E447 Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge | 5.45 |
| E450 Conduct classroom instruction on centrifuge profiles | 4.59 |
| H566 Respond to chamber related physiological adverse reactions, such as hypoglycemia episodes or oxygen toxicity reactions | 4.36 |
| H562 Perform inside attendant functions on hyperbaric chamber dives | 4.32 |
| E458 Conduct classroom instruction on experimental aspects of hyperbaric oxygen | 4.14 |
| H565 Perform team chief functions during chamber training and proficiency dives | 4.05 |
| H558 Perform chamber emergency dive team member functions | 3.91 |
| G517 Critique chamber flight lecturers | 3.86 |
| D422 Participate in classroom proficiency training | 3.77 |
| H563 Perform inside patient attendant functions during hyperbaric chamber dives | 3.73 |
| H528 Brief individuals on chamber operations and policies | 3.68 |
| G518 Critique chamber proficiency training flights with team members | 3.64 |
| D378 Critique student test results with students | 3.41 |
| E473 Conduct classroom instruction on USAF Hyperbaric Therapy Programs - Future and Past | 3.41 |
| H559 Perform chamber operator functions on hyperbaric chamber dives | 3.32 |
| B81 Act as officer-in-charge (OIC) during equipment evaluation dives | 3.18 |
| H564 Perform lock operator functions on hyperbaric chamber dives | 3.14 |
| K689 Maintain proficiency and currency in cardiopulmonary resuscitation (CPR) techniques | 3.09 |
| H540 Direct emergency hyperbaric chamber proficiency training | 3.05 |
| E470 Conduct classroom instruction on principles of flight training | 3.00 |
| G519 Escort chamber reactors to hospital | 3.00 |
| I596 Perform OIC functions on PFT teams | 2.95 |
| E468 Conduct classroom instruction on principles of aircraft navigation and weather | 2.91 |

The 916X Aerospace Physiologist Officer MANAGES all functions of the USAF aerospace physiological training units or flights; ORGANIZES and prepares instructional materials; INSTRUCTS personnel in human factors and related subjects; COORDINATES aerospace physiological training programs; SUPERVISES operation of aerospace physiology training devices; MANAGES operation of Hyperbaric chambers; PLANS, COORDINATES, DIRECTS, AND PERFORMS aerospace biotechnology research and development; and MANAGES specialized units supporting high altitude and performance flying activities.

The 149XA Air Operations Officer, Pilot, PLANS AND DIRECTS physiological training and support functions; and PLANS AND DIRECTS aircrew life support functions.

The 229XA Air Operations Officer, Navigator, PLANS AND DIRECTS physiological training and support functions; and PLANS AND DIRECTS aircrew life support functions.

ANALYSIS OF DATA BY JOB STRUCTURE GROUP

Data Processing and Job Structure Analysis

A USAF Occupational Analysis actually begins when the usable JI booklets are optically scanned and the data are merged to automatically form a complete case record of the designated AFSC. This automation sorts, matches, and merges the survey data to generate the appropriate computer files which become the necessary reference materials used by the analyst to perform the actual data analysis.

Conversely, the analysis process itself begins with an examination of the utilization field structure. The structures of the Aerospace Physiologist field as a whole and the two rated DAFSCs within are examined based on the similarity of tasks performed and the percent of time spent ratings provided by job members, independent of other specialty background factors. This analysis is based on what personnel are doing on their jobs, as determined from task responses.

Analysis of the resulting groups identified:

(1) the number and characteristics of the different jobs which existed across the Aerospace Physiologist DAFSCs;

(2) the tasks which were performed together by groups of respondents; and,

(3) tasks and incumbent characteristics which may be peculiar to specific functional requirements AS THEY EXISTED AT THE TIME OF THE SURVEY.

A standardized automated job clustering program is used to identify specific jobs. This hierarchical grouping program is a basic part of the USAFOMS Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description (all of the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description for tasks performed and the relative amount of time spent on each task in the JI. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time spent ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed, based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

The basic identifying group used in this hierarchical job structuring process is the job. A job is a group of individuals who perform many of the same tasks and spend similar amounts of time performing them. When there are variations in the combinations of tasks and time spent by sample respondents, a number of different jobs are identified. When there is a substantial degree of similarity between different jobs, they are grouped together and labeled as clusters. Specialized jobs too dissimilar to fit within a cluster are labeled independent jobs (IJs). Differences in the job descriptions of the work being performed are driven by kinds of similar tasks performed, number of tasks performed, and percent of members performing tasks.

The job structure information resulting from this grouping process (the various jobs within the utilization field) can be used to evaluate the accuracy of utilization field documents, such as AFR 36-1 Specialty Descriptions and CTSs, as well as to gain a better understanding of current utilization patterns.

Overview of Specialty Jobs

As discussed in the INTRODUCTION section previously, this occupational survey contains data regarding the Aerospace Physiologist officers by job structure groups, individually by DAFSCs, paygrade and MAJCOM groups, and additionally by the AFSC group as a whole. Accordingly, the following job structure data are reflective of the task similarity and relative time spent on duties by all Aerospace Physiologist officers included in the study.

Structure analysis of the computer products and associated data indicates the presence of two clusters and two IJs. For comparison purposes, Table 2, Job Structure Groups, provides a listing of each of the six jobs included within the clusters and IJs in the survey sample. The stage (ST) number shown beside each title in the listing is a reference to computer-printed information; while the number of personnel in each group (N) is also shown. The user should be aware that the number of personnel in the subgroups does not always equal the total number shown for a cluster, nor are all officers in the total survey included within the clusters and IJs. The jobs performed by these individuals are, however, adequately described and covered within and by the stages included in the following narrative descriptions. It will assist the reader to understand and compare indices, if reference is made to the following figures, tables, and appendices while reading the following narrative. Tables 2 through 10 present selected data of the many indices

TABLE 2

JOB STRUCTURE GROUPS*

- I. AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS CLUSTER (ST15, N=29 - 37%)**
 - A. Aerospace Physiological Specialized Training Instructors (ST25, N=11)**
 - B. Aerospace Physiological Training Officers (ST21, N=16)**
- II. AEROSPACE PHYSIOLOGICAL PLANS AND OPERATIONS MANAGERS CLUSTER (ST13, N=32 - 41%)**
 - A. Aerospace Physiological Operations Directors (ST18, N=22)**
 - B. Aerospace Physiological Deputy Directors (ST20, N=8)**
- III. AEROSPACE PHYSIOLOGICAL HYPERBARIC OPERATIONS CHIEFS INDEPENDENT JOB (ST14, N=4 - 5%)**
- IV. AEROSPACE PHYSIOLOGICAL RESEARCH, DEVELOPMENT, TEST, EVALUATION AND ACQUISITION OFFICERS INDEPENDENT JOB (ST17, N=3 - 4%)**

* Individuals (10) not included in above jobs because of specificity of jobs or low numbers of personnel performing tasks are generally described within those jobs discussed in the Job Structure Analysis

NOTE: Percentages may not add up to 100 percent due to rounding or nonresponse

used to support the comparisons and discussions presented in the following specialty job descriptions.

Specialty Job Descriptions

The data in the resulting job structure are determined by performing a comprehensive analysis of the responses from the 78 officers of the targeted DAFSC groups. Based on these CODAP products containing variations in combinations of tasks performed, similarity, and time spent on tasks, the USAFOMS job structure analysis identified two clusters and two IJs within the survey sample. As shown in Figure 4, a total of 68 officers (87 percent) are captured in the analysis.

The two clusters containing four jobs and accounting for 78 percent of the total survey population are:

- I. AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS CLUSTER (ST15, N=29)
- II. AEROSPACE PHYSIOLOGICAL PLANS AND OPERATIONS MANAGERS CLUSTER (ST13, N=32)

The two IJs accounting for 9 percent of the total survey population are:

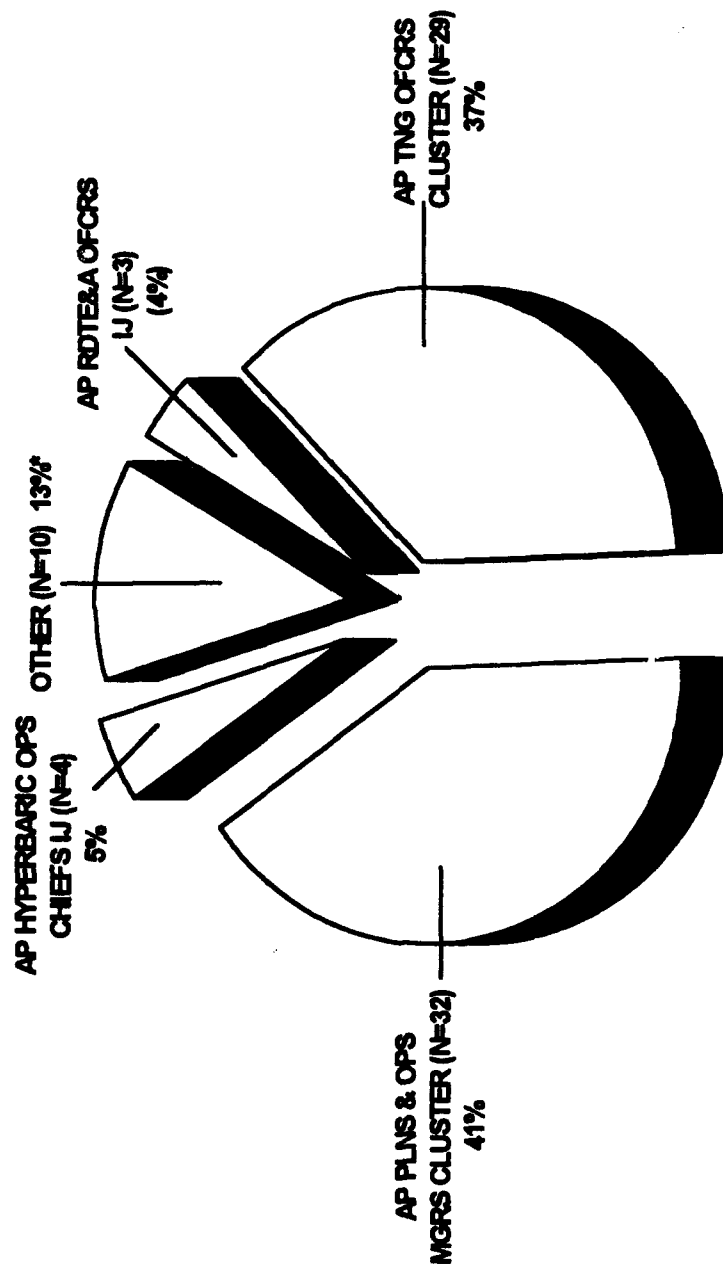
- III. AEROSPACE PHYSIOLOGICAL HYPERBARIC OPERATIONS CHIEFS INDEPENDENT JOB (ST14, N=4)
- IV. AEROSPACE PHYSIOLOGICAL RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION OFFICERS INDEPENDENT JOB (ST17, N=3)

The 78 Aerospace Physiologist survey respondents perform tasks in all duties to some measurable extent. There are only 23 of the 828 tasks included in the USAFOMS JI that were not performed by any of the respondents. A major focus of the incumbents' worktime is performing Management and Supervisory functions (29 percent), followed by Specialized Aerospace Physiology Instructions functions (18 percent), Training functions (14 percent), and Organizing, Planning, and Command functions (13 percent). Eighty-three percent of the survey sample are represented by DAFSC 916X, 13 percent by DAFSC 1495A, and 4 percent by DAFSC 2295A.

An indicator of the variability and diversity of jobs performed by the Aerospace Physiologist officers is the number and type of tasks performed by a substantial percentage of all

FIGURE 4

DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICERS ACROSS SPECIALTY CLUSTERS AND INDEPENDENT JOBS



* Individuals not included in specialty jobs because of low numbers of personnel performing tasks or of specificity of jobs. Jobs performed by those not included are generally described within the clusters and independent jobs discussed in Job Structure Analysis.

Eligible strength as of Feb 92 (N=106)
Survey respondents (N=78)

responding officers. Data analysis indicates that 23 tasks are performed by all respondents, 80 tasks by 90 percent of the respondents, and 123 tasks by 80 percent of the respondents.

Tasks performed by 100 percent of respondents are:

- determine requirements for personnel, workspace, equipment, or supplies
- develop and establish work methods
- write replies to matters of command or organizational interests
- approve or disapprove AF Forms 988 (Leave Request/Authorization)
- approve or disapprove staff documents, such as staff summary sheets
- attend relevant scientific meetings
- consult with concerned organization on physiological questions or problems
- participate in safety meetings
- participate in staff meetings or briefings
- plan special training or orientation programs
- prepare abstracts for scientific meetings
- prepare charts, graphs, or slides for briefings
- proofread correspondence, reports, or forms
- write letters of counseling, appreciation, or reprimand
- write narrative correspondence or reports
- write point, position, or talking papers
- conduct classroom instruction on acceleration and anti-G clothing and equipment
- conduct classroom instruction on hypoxia and hyperventilation
- conduct classroom instruction on physics of the atmosphere
- advise inside observers of appropriate treatment measures for reactors
- monitor chamber inside and outside observer positions during proficiency flights
- perform inside observer functions during hypobaric proficiency flights

Representative tasks performed by 90 percent of the respondents include:

- conduct safety inspections, briefings, or debriefings
- advise staff or unit personnel on training matters
- approve or disapprove lesson plans
- conduct inservice training sessions
- conduct instructor in-house training
- prepare lesson plans

- write test questions, such as for block tests
- brief aircrew students on safety precautions associated with flying and life support equipments
- brief or demonstrate physiological aids used in flying, such as survival equipment and ejection seats
- conduct classroom instruction on decompression sickness (DCS)
- conduct classroom instruction on self-imposed stresses
- conduct classroom instruction on respiration and circulation

Representative tasks performed by 80 percent of the respondents include:

- conduct classroom instruction on chamber flights
- conduct classroom instruction on principles and problems associated with vision, including night vision
- demonstrate or operate Barany chairs
- instruct and critique procedures for treatment of hypoxia
- critique chamber proficiency training flights with team members
- perform chamber operator functions on hyperbaric chamber dives
- instruct Tanker, Transport, and Bomber (TTB) courses
- direct completion of corrective actions on inspection, standardization, or evaluation reports
- direct special inspections of hyperbaric chamber equipment and assemblies
- schedule special aerospace physiologist orientation programs, such as for hyperbaric chambers

JOB STRUCTURE GROUPS

The following section identifies each of the clusters and IJs, as well as providing a detailed narrative description of each of the six jobs included within the structure analysis. In describing the groups, the provided data include a brief summary of the characteristics of the respondents, sample tasks which illustrate the nature of their jobs, differences and similarities of the tasks performed by the groups, and what major findings caused the group to become a separate entity within the job structure analysis.

Figure 4 displays Distribution of Aerospace Physiologist Personnel Across Clusters and Independent Jobs. The average percentage of time spent on the four major functional duties performed by clusters and IJs is illustrated in Table 3. Selected background data for these same groups are shown in Table 4. Tables 5 through 10 provide other statistical supportive data for the

TABLE 3

AEROSPACE PHYSIOLOGIST OFFICERS
AVERAGE PERCENT TIME SPENT ON MAJOR FUNCTIONAL DUTIES BY CLUSTERS AND INDEPENDENT JOBS

| DUTIES | # OF TASKS | AP TRAINING OFFICERS CLUSTER (ST15, N=29) | AP PLNS & OPNS MANAGERS CLUSTER (ST13, N=32) | AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4) | AP RDTE&A OFFICERS IJ (ST17, N=3) |
|--|------------|---|--|---|-----------------------------------|
| A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS | 80 | 5% | 19% | 10% | 2% |
| B. MANAGEMENT AND SUPERVISORY FUNCTIONS | 205 | 19% | 35% | 37% | 17% |
| C. INSPECTION AND EVALUATION FUNCTIONS | 59 | 2% | 6% | 4% | - |
| D. TRAINING FUNCTIONS | 97 | 17% | 15% | 5% | - |
| E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS | 45 | 36% | 9% | 3% | 3% |
| F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS | 23 | - | - | - | 3% |
| G. HYPOBARIC CHAMBER FUNCTIONS | 18 | 9% | 3% | 2% | 4% |
| H. HYPERBARIC CHAMBER FUNCTIONS | 48 | 3% | 3% | 25% | - |
| I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS | 24 | - | - | - | - |
| J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTION | 64 | 4% | 1% | - | 2% |
| K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS | 41 | 3% | - | - | 2% |
| L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS | 30 | - | - | - | - |
| M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS | 94 | - | 6% | 14% | 67% |
| TOTAL - 828 TASKS | | | | | |

- Response under 1 percent or nonresponse

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 4
AEROSPACE PHYSIOLOGIST OFFICERS
SELECTED BACKGROUND DATA FOR CLUSTERS AND INDEPENDENT JOBS

| | AP TNG OFCRS CLUSTER (ST15) | AP PLNS & OPNS MGRS CLUSTER (ST13) | AP HYPERBARIC OPS CHIEFS IJ (ST14) | AP RDTE&A OFCRS IJ (ST17) |
|---|---|--|--|---------------------------------------|
| GROUP SIZE | 29 | 32 | 4 | 3 |
| % OF SURVEY SAMPLE | 37% | 41% | 5% | 4% |
| AVG # OF TASKS | 107 | 251 | 118 | 66 |
| <u>OFFICER GRADE</u> | | | | |
| O-1 | 7% | - | - | 33% |
| O-2 | 34% | 6% | - | - |
| O-3 | 38% | 19% | 75% | 33% |
| O-4 | 14% | 34% | - | 33% |
| O-5 | 7% | 19% | 25% | - |
| O-6 | - | 22% | - | - |
| SUPERVISE | 48% | 91% | 50% | - |
| <u>TIME IN PRESENT JOB</u> | | | | |
| 1-24 MOS | 82% | 57% | 50% | 100% |
| 25+ MOS | 18% | 38% | 50% | - |
| <u>TIME IN UTILIZATION FIELD</u> | | | | |
| 1-48 MOS | 52% | 21% | 50% | 33% |
| 49+ MOS | 48% | 79% | 50% | 66% |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 4 (CONTINUED)

**AEROSPACE PHYSIOLOGIST OFFICERS
SELECTED BACKGROUND DATA FOR CLUSTERS AND INDEPENDENT JOBS**

| | AP TNG OFCRS CLUSTER (ST15) | AP PLNS & OPNS MGRS CLUSTER (ST13) | AP HYPERBARIC OPS CHIEFS IJ (ST14) | AP RDTE&A OFCRS IJ (ST17) |
|--|---|--|--|---------------------------------------|
| <u>AFSCs</u> | | | | |
| 9161 | 21% | 9% | - | |
| 9166 | 48% | 78% | 100% | 100% |
| 1495A | 28% | 6% | - | - |
| 2295A | 3% | 6% | - | - |
| CONUS | 86% | 84% | 100% | 100% |
| OVERSEAS | 14% | 16% | - | - |
| <u>MAJCOM OR OPERATING AGENCY</u> | | | | |
| USAF | 3% | 3% | - | - |
| USAF | 7% | 6% | - | - |
| AETC | 21% | 16% | - | - |
| PACAF | 7% | 6% | - | - |
| ACC | 28% | 25% | - | - |
| AMC | 14% | 16% | 25% | - |
| AFMC | 21% | 22% | 50% | 100% |
| OTHER | - | 6% | 25% | - |
| MALE | 86% | 81% | 75% | 100% |
| FEMALE | 14% | 19% | 25% | - |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 5

**AEROSPACE PHYSIOLOGIST OFFICERS
TOTAL ACTIVE FEDERAL MILITARY SERVICE (TAFMS) DISTRIBUTION
BY CLUSTER AND INDEPENDENT JOBS**

| <u>TAFMS</u> | AP TNG OFCRS CLUSTER (ST15) | AP PLNS & OPNS MGRS CLUSTER (ST13) | AP HYPERBARIC OPS CHIEFS IJ (ST14) | AP RDTE&A OFCRS IJ (ST17) |
|----------------|---|--|--|---------------------------------------|
| 1-24 | 14% | 3% | 25% | 33% |
| 25-48 | 24% | 3% | - | - |
| 49-96 | 24% | 13% | 50% | 33% |
| 97-144 | 14% | 6% | - | - |
| 145-192 | 10% | 19% | - | - |
| 193+ | 13% | 56% | 25% | 33% |
| TOTAL IN GROUP | 29 | 32 | 4 | 3 |

NOTE: Columns may not add to 100 percent because of rounding, under 1 percent, or nonresponse

- Less than 1 percent or no response

TABLE 6

**DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICER GRADES
ACROSS CLUSTERS AND INDEPENDENT SPECIALTY JOBS**

| <u>PAYGRADE</u> | AP TNG OFCRS CLUSTER (ST15, N=29) | AP PLNS & OPNS MGRS CLUSTER (ST13, N=32) | AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4) | AP RDTE&A OFCRS IJ (ST17, N=3) |
|------------------------|--|---|--|---|
| O-1 (N=5) | 7% | - | - | 33% |
| O-2 (N=13) | 34% | 6% | - | - |
| O-3 (N=26) | 38% | 19% | 75% | 33% |
| O-4 (N=18) | 14% | 34% | - | 33% |
| O-5 (N=9) | 7% | 19% | 25% | - |
| O-6 (N=7) | - | 22% | - | - |

- Less than 1 percent or no response (N=68)

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 7

DISTRIBUTION OF AEROSPACE PHYSIOLOGIST DAFSC GROUP MEMBERS
ACROSS CLUSTERS AND INDEPENDENT SPECIALTY JOBS

| <u>DAFSC</u> | AP TNG OFCRS CLUSTER (ST15, N=29) | AP PLNS & OPNS MGRS CLUSTER (ST13, N=32) | AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4) | AP RDTE&A OFCRS IJ (ST17, N=3) |
|--------------|--|---|--|---|
| 9161 (N=11) | 21% | 9% | - | - |
| 9166 (N=54) | 48% | 78% | 100% | 100% |
| 1495A (N=10) | 28% | 6% | - | - |
| 2295A (N=3) | 3% | 6% | - | - |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 8

**AEROSPACE PHYSIOLOGICAL OFFICERS
AERONAUTICAL RATING STATUS OF CLUSTERS
AND INDEPENDENT JOBS**

| | AP TNG OFCRS CLUSTER (ST15, <u>N=29</u>) | AP PLNS & OPNS MGRS CLUSTER (ST13, <u>N=32</u>) | AP HYPERBARIC OPS CHIEFS IJ (ST14, <u>N=4</u>) | AP RDTE&A OFCRS IJ (ST17, <u>N=3</u>) |
|------------------------|--|---|--|---|
| NONRATED PERSONNEL | 69% | 88% | 100% | 100% |
| <u>1495A (PILOT)</u> | | | | |
| RATED | 24% | 3% | - | - |
| NONRATED-SUPP POSITION | 3% | 3% | - | - |
| <u>2295A-NAVIGATOR</u> | | | | |
| RATED | 3% | 6% | - | - |
| NONRATED-SUPP POSITION | - | - | - | - |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 9

AEROSPACE PHYSIOLOGIST OFFICERS
MAJCOM DISTRIBUTION BY SPECIALTY JOBS

| | AP TNG OFCRS CLUSTER (ST15, N=29) | AP PLNS & OPNS MGRS CLUSTER (ST13, N=32) | AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4) | AP RDTE&A OFCRS IJ (ST17, N=3) |
|-------------|--|---|--|---|
| USAFA | 3% | 3% | - | - |
| USAFE | 7% | 6% | - | - |
| ATC | 21% | 16% | - | - |
| PACAF | 7% | 6% | - | - |
| ACC | 28% | 25% | - | - |
| AMC | 14% | 16% | 25% | - |
| AFMC | 20% | 22% | 50% | 100% |
| AFELM OTHER | - | 6% | 25% | - |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 10

AEROSPACE PHYSIOLOGIST OFFICERS
JOB SATISFACTION INDICATORS BY JOB STRUCTURE CLUSTERS AND INDEPENDENT JOBS

| | AP TNG OFCRS CLUSTER (ST15, N=29) | AP PLNS & OPNS MGRS CLUSTER (ST13, N=32) | AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4) | AP RDTE&A OFCRS IJ (ST17, N=3) |
|---|--|--|---|---|
| <u>EXPRESSED JOB INTEREST:</u> | | | | |
| INTERESTING | 86% | 94% | 100% | 100% |
| SO-SO | 10% | 3% | - | - |
| DULL | 3% | - | - | - |
| <u>PERCEIVED UTILIZATION OF TALENTS:</u> | | | | |
| EXCELLENT TO PERFECT | 24% | 50% | 25% | 33% |
| FAIRLY WELL TO VERY WELL | 66% | 50% | 75% | 67% |
| VERY LITTLE OR NOT AT ALL | 10% | - | - | - |
| <u>PERCEIVED UTILIZATION OF TRAINING:</u> | | | | |
| EXCELLENT TO PERFECT | 21% | 56% | - | 33% |
| FAIRLY WELL TO VERY WELL | 69% | 44% | 100% | 67% |
| VERY LITTLE OR NOT AT ALL | 10% | - | - | - |
| <u>SENSE OF ACCOMPLISHMENT:</u> | | | | |
| SATISFIED | 83% | 97% | 75% | 100% |
| NEUTRAL | 7% | - | 25% | - |
| DISSATISFIED | 10% | 3% | - | - |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

following specialty job descriptions. Representative tasks for all groups forming the clusters and IJs are presented in Appendices B1 through B4.

I. AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS CLUSTER (ST15, N=29).

The first cluster contains 29 officers who represent 37 percent of the survey respondents. Sixty-nine percent of the respondents hold a 916X DAFSC, representing 31 percent of the responding 916X DAFSC officers; 28 percent of the respondents hold a 1495A DAFSC, representing 80 percent of the responding 1495A officers; and one member holds a 2295A DAFSC, representing one-third of the responding 2295A officers. As the title suggests, all members of this cluster are characterized by the relatively large amount of job time spent performing Aerospace Physiology Training functions. Overall, these cluster members perform an average of 107 tasks, of which 34 common tasks account for 41 percent of their worktime.

Analysis identified two separate jobs within the Aerospace Physiological Training officers cluster. While these two jobs are fairly similar in nature with types of duties performed, there is a considerable range in average number of tasks performed by the incumbents, with 139 being the largest and 64 being the smallest number of tasks performed by any of the incumbents. Percent time spent indices also present a considerable range between the two jobs (53 to 25 percent). Forty-eight percent of these officers indicated they supervise other personnel. The greater majority are assigned to CONUS (ACC - 28 percent), with the remaining officers being assigned to AETC and AFMC (21 percent each), and AMC (14 percent). Only 14 percent of this cluster group are stationed overseas at USAFE or PACAF bases (7 percent each).

Of the members within the cluster, 41 percent have been in their current jobs from 1 to 12 months, 41 percent from 13 to 24 months, and 18 percent for 25+ months. The majority of the officers are captains (38 percent) and first lieutenants (34 percent), with 14 percent being majors. Only four of the respondents are stationed at OS bases in Wing or Group positions. Fourteen percent of the cluster are female. Thirty percent indicate they are rated.

Overall job satisfaction indices were high for this cluster group. Of the 29 members represented, 86 percent find their job "Interesting;" 66 percent believe their job utilizes their talents "Fairly Well To Very Well," while utilization of training indices of 69 percent are also in the "Fairly Well to Well" category. These members also report a very high percentage (83 percent) of personal "Satisfaction" with their sense of accomplishment from work. Representative tasks performed by this cluster group are presented in Appendix B1.

The two identified jobs are:

- A. Aerospace Physiological Specialized Training Instructors (ST25, N=11)
- B. Aerospace Physiological Training Officers (ST21, N=16)

As would be expected, these training officers spend proportionally more of their worktime focusing on Specialized Aerospace Physiology Instructions and Training functions (36 percent), followed by Management, Supervisory, Organizing, Planning, and Command functions (24 percent). Commonly reported job titles are Physiological Training Officer, Department Chairman, Department of Aerospace Physiologist, Aerospace Physiologist officer, and Human Factors Test Physiologist.

The differences in the job descriptions of the work being performed by incumbents in the two jobs include, but are not limited to, kinds of similar tasks performed, the number of tasks performed (e.g., 64 to 139 tasks), percent members performing tasks (e.g., 83 percent to 100 percent), and time spent on tasks (e.g., Specialized Aerospace Physiological Instructions functions (25 percent to 53 percent)). These differences, as stated, will be common to all data included in the job structure groups. An example of tasks common across the Aerospace Physiologist Training officers cluster include:

- conduct classroom instructions on human factors
- conduct classroom instructions on hypoxia and hyperventilation
- certify AF Forms 702 (Individual Physiological Training Record)
- brief trainees prior to chamber flights to prevent unwarranted chamber reactions
- prepare lesson plans
- brief aircrew students on safety precautions associated with flying and life support equipment
- participate in safety meetings
- practice classroom presentations
- demonstrate or operate Barany chairs
- prepare charts, graphs, or slides for briefings
- monitor inside observer positions and students during rapid decompression

A. Aerospace Physiological Specialized Training Instructors (ST25, N=11). The first of the two jobs in the Aerospace Physiological Training officers cluster is distinct in that these members spend the largest amount of their worktime performing specialized Aerospace Physiology Instructions functions (53 percent). The remainder of their job time is occupied primarily performing Management and Supervisory functions (13 percent), Training functions (12 percent), Organizing, Planning, and Command (11 percent) and Hypobaric Chamber functions (5 percent).

These incumbents have a narrow scope in their jobs in respect to the other specialty jobs in the study in that they perform the least average number of common tasks (21) with 64 tasks accounting for 45 percent of their job time. These officers differ from the other 16 members of the cluster in that 91 percent have been in their present jobs from 1 to 24 months, which makes them the junior members of the cluster group. The membership is equally divided between

DAFSCs 1495A and 196X (five each). Analysis indicates that the six rated officers are basically performing the same types of tasks as do the 916X officers.

This membership spends 55 percent of their worktime supervising other personnel. Seven of the officers are captains, while the other four officers represent all other grades except colonel. All members are stationed at CONUS bases and report working in positions with job titles such as Physiological Training officer, Chief of Academics, and Aerospace Physiologist Instructor. Tasks which differentiate the Aerospace Physiologist Specialized Instructors from the other members of the cluster include:

- conduct classroom instructions on principles and problems associated with vision, including night vision
- conduct classroom instruction on respiration and circulation
- conduct classroom instruction on decompression sickness (DCS)
- conduct classroom instruction on physics of atmosphere
- instruct and critique student procedures for treatment of hyperventilation
- instruct and critique student on performing anti-G straining maneuvers
- brief aircrew students on safety precautions associated with flying and life support equipment

B. Aerospace Physiological Training Officers (ST21, N=16). The second of the two jobs identified in this cluster differs from the Aerospace Physiology Specialized Training officers in that they spend 47 percent of their worktime in training; however, it is divided between Specialized Aerospace Physiology Instructions (25 percent) and Training functions (22 percent). They also spend a larger percent of their worktime performing Management and Supervisory functions (25 percent), as well as working more closely training aircrew members in hyperbaric chamber, parachute familiarization, pressure suit and life support equipment, centrifuge training, and HAAMS tasks.

Overall, these officers perform an average of 139 tasks, with 55 common tasks accounting for 43 percent of their job time. Fifty-six percent of the membership report they are supervisors. These members, like their counterparts in the cluster group, are also relatively new in their jobs in that 81 percent report being in their present jobs from 1 to 24 months.

Nine of the members are first lieutenants, three are majors, two are captains, and one each lieutenant colonel and second lieutenant. Almost all incumbents (13) have a 916X DAFSC, while 3 members are rated officers with a 1495A DAFSC. Job titles such as OIC Aircrew Training, Chief, Aerospace Physiologist, and PSD Operations Officer are commonly reported. Tasks that differentiate these officers from the other 11 members of the Aerospace Physiological Training officers cluster include:

- conduct classroom instruction on health and wellness
- conduct classroom instruction on aircrew attention management
- instruct tanker, transport, and bomber (TTB) courses
- prepare charts, graphs, or slides for briefings
- certify AF Forms 1274 (Physiological Training)
- participate in staff meetings or briefings
- coordinate formal classroom training with appropriate personnel
- conduct facility tours
- advise staff or unit personnel on training matters
- conduct hypobaric chamber team training initiate recalls
- perform daily office security inspections

II. AEROSPACE PHYSIOLOGICAL PLANS AND OPERATIONS MANAGERS CLUSTER (ST13, N=32). This second cluster group represents 41 percent of the survey sample and is the larger of the two clusters. Incumbents in the two jobs identified within the Aerospace Physiologist Plans and Operations Managers cluster are differentiated from each other in the broad scope of their duties by the concentration of their worktime performing Management and Supervisory duties (34 to 35 percent) and Organizing, Planning, and Command functions (19 to 22 percent). The largest majority of the incumbents are higher ranking officers (majors, colonels, and lieutenant colonels - 75 percent), while captains and first lieutenants comprise the remainder of the population.

These members perform the largest numbers of tasks of the survey group with an overall average of 251 tasks, of which 92 are commonly performed and account for 32 percent of their worktime. As is to be expected, Management, Supervisory, Organizing, Planning, and Command functions comprise the dominant proportion of the members' worktime (54 percent). They also perform the largest percent of time spent in Inspection and Evaluation functions (8 percent), as well as performing tasks included in all other duty areas of the USAFOMS JI to some measurable amount.

Eighty-seven percent of the members hold a 916X DAFSC, which represents 43 percent of the responding AFSC 916X officers and is the largest representation of this DAFSC. Ninety-one percent of the incumbents supervise. They also report the most longevity in their current jobs with 1 to 24 months (57 percent), 25 to 36 months (19 percent), and 37 to 48 months (19 percent). Six of the incumbents are female. Four of the incumbents are overseas and attached to PACAF or USAFE (6 percent each), with the remaining members being stationed largely at ACC - 25 percent, AFMC - 22 percent, and AETC and AMC - 16 percent each. Four of the officers indicate they are rated personnel in nonrated positions (2 each pilots and navigators) and comprise 12 percent of this population.

The two separate jobs that were identified within the Aerospace Physiological Plans and Operations Managers cluster are listed below. Representative tasks performed by this cluster group are presented in Appendix B2.

- A. Aerospace Physiological Operations Directors (ST18, N=22)
- B. Aerospace Physiological Deputy Directors (ST20, N=8)

These supervisory and management officers report high indices in their sense of accomplishment from their work (97 percent), while 94 percent of the group find their jobs "Interesting." The members of this cluster believe their talents are utilized "Fairly Well To Very Well," (50 percent) and "Excellent to Perfect" (50 percent). They also perceive their utilization of training as "Excellent To Perfect" (56 percent) and "Fairly Well To Well" (44 percent). Examples of tasks common across the Aerospace Physiological Plans and Operations Managers cluster include:

- counsel personnel on career, personal, or military related-problems
- write narrative correspondence or reports
- interpret policies, directives, or procedures
- analyze unit plans for effectiveness
- establish and administer procedures for implementation of programs, policies, or plans
- approve or disapprove budget and financial expenditures
- advise staff or unit personnel on training matters
- write point, position, or talking papers
- conduct classroom training on aircrew attention management
- conduct classroom training on mechanical effects of pressure changes
- chair ad hoc groups, special conferences, or planning committees

A. Aerospace Physiological Operations Directors (ST18, N=22). The members of the first of the two jobs identified differentiate themselves from the other eight members of this cluster in that they spend the largest amount of time of any of the members of this study performing Inspection and Evaluation functions (8 percent) and also have an equal number of representatives (two each) from both rated DAFSCs. The membership consists of mostly higher ranking personnel, seven colonels, seven majors, and four lieutenant colonels. All but three members supervise. Thirteen of these incumbents have been in their current jobs from 1 to 24 months and 9 for 25 to 48 months.

Over half (53 percent) of the incumbent's worktime is spent performing Management and Supervisory (34 percent) and Organizing, Planning, and Command functions (19 percent). The remaining time is divided between Training functions (19 percent), Inspection and Evaluation functions (8 percent), as well as working with both chambers, pressure suit and life support equipment, centrifuge, and HAAMS. These incumbents do not, however, perform Research,

Development, Test, Evaluation, and Acquisition (RDTE&A) functions, as do the other members of the cluster group.

These Aerospace Physiological Operations Directors perform an average of 275 tasks, with 163 commonly performed tasks accounting for 53 percent of their job time. A few of the job titles reported by these officers are Human Factors Consultant, Director, Physiological Training, and Chief, Physiological Support Division. Examples of tasks that are performed by members of this job are:

- evaluate command or organizational training plans and programs
- track timeliness and effectiveness of unit corrective actions
- evaluate inspection report findings
- analyze inspection reports or procedures
- conduct follow-up actions on open report discrepancies
- direct completion of corrective actions on inspection,
standardization, or evaluation reports
- brief aircrew students on safety precautions
- brief personnel on changes in training methods or procedures
- review instructor evaluations
- determine if training for assigned courses follows established
policies and directives

B. Aerospace Physiological Deputy Directors (ST20, N=8). The second job in this cluster differs from the other in that it is less broad in scope since members spend a fourth of their time accomplishing tasks in RDTE&A functions. There are no rated members reported in this job since all eight members hold a 916X DAFSC. These incumbents perform an average of 211 tasks, with 83 commonly performed tasks accounting for 39 percent of their worktime. The largest amount of worktime (57 percent) for these incumbents is, as with the other members of the cluster, concentrated on Management and Supervisory functions (35 percent) and Organizing, Planning, and Command functions (22 percent). In contrast to the Aerospace Physiological Operation Directors job, this group does not perform tasks in HAAMS and parachute familiarization training, and performs fewer tasks in hypobaric chamber, pressure suit and life support equipment, and centrifuge training duties.

The membership consists of two lieutenant colonels, four majors, and two captains. Three officers report being in their current position from 1 to 24 months and five from 25 to 48 months. All members report supervising other personnel. Commonly reported job titles for these members are Chief, Aerospace Physiologist Division, OIC Cockpit Integration Laboratory, and Chief, Clinical Investigations. Tasks which are typically accomplished by the Aerospace Physiologist Deputy Directors are:

- originate protocols for human and animal research
- analyze research related data
- monitor ongoing research protocols
- advocate funding for projected research projects
- approve or disapprove justifications for new or additional facilities or equipment
- determine requirements for personnel, workspace, equipment, or supplies
- approve or disapprove directives, regulations, or manuals
- approve or disapprove work priorities
- approve or disapprove justifications for manning or manpower changes

III. AEROSPACE PHYSIOLOGICAL HYPERBARIC OPERATIONS CHIEFS INDEPENDENT JOB (ST14, N=4). The four members of this IJ represent 5 percent of the survey sample and are distinctive from the members of the other Aerospace Physiologist officer groups in the study in that they fairly evenly divide their worktime in four duties. Almost half of their job time (47 percent) is spent performing Management and Supervisory (37 percent) and Organizing, Planning, and Command (10 percent) functions, with the remaining (39 percent) performing Hyperbaric Chamber functions (25 percent) and RDTE&A functions (14 percent). All four incumbents hold a 916X DAFSC, and only two of the members supervise other personnel. These members are stationed largely in CONUS at AFMC (50 percent) and AMC (25 percent) bases.

Two of the members are relatively new in their current job (1 to 12 months), while the other two officers have from 25 to 36 months' expertise in duty functions. These four incumbents represent 5 percent of the survey sample and perform an average of 118 tasks, with 52 common tasks accounting for 40 percent of their worktime. Representative tasks performed by these officers are presented in Appendix B3.

The membership includes one lieutenant colonel and three captains, and none of the members report being rated. Commonly reported job titles for this IJ are Chief, Hyperbaric Operations and Chief, Life Sciences. Again, extremely high indices in job satisfaction are reported by the Aerospace Physiologist Operations Chiefs, who find their job "Interesting" (100 percent) and believe that their job utilizes their training "Fairly Well To Very Well" (100 percent). Three quarters (75 percent each) of these officers report being "Satisfied" with sense of accomplishment from work and utilization of their talents in the "Fairly Well To Very Well" range. Tasks which differentiate these members from the other Aerospace Physiologist officers are:

- perform chamber operator functions on hyperbaric chamber dives
- monitor scheduling of hyperbaric medicine team monthly crew dives
- monitor status of hyperbaric equipment and supply orders

- evaluate research protocols and test plans for compliance with human use committee directives
- perform routine research functions, such as investigative or research assistant
- direct emergency hyperbaric chamber proficiency training
- review periodic inspection documentation of hyperbaric chamber assemblies
- establish supply requirements in support of hyperbaric research needs
- direct loading and unloading of patients to or from hyperbaric chambers

IV. AEROSPACE PHYSIOLOGICAL RESEARCH, DEVELOPMENT, TEST, EVALUATION, & ACQUISITION (RDTE&A) OFFICERS INDEPENDENT JOB (ST17, N=3). The final job identified in this data analysis contains three officers and represents 4 percent of the survey sample. These members are distinct in respect to all other members of the survey in that these are junior members in their first job and are the newest members with only 1 to 12 months in their current jobs. They also perform the smallest average number of tasks (66) of all the job structure groups. Fifty commonly performed tasks account for 68 percent of their worktime.

These officers also spend the largest percentage of job time spent on duties by any of the respondents in the study performing RDTE&A duties (67 percent), followed by Management and Supervisory functions (17 percent). These two areas comprise the major portion (87 percent) of their total worktime. These incumbents also differ in that they do not perform training and hypobaric chamber functions as do the majority of the survey respondents. Representative tasks performed by these officers are presented in Appendix B4.

This RDTE&A IJ includes a major, a captain, and a second lieutenant who are stationed at AFMC CONUS bases in a Research Laboratory position. All members hold a 916X DAFSC. None of the members report being rated or supervising other personnel. Typical tasks performed by this group are:

- conduct tests and evaluations on aerospace physiologist equipment
- test and evaluate life support equipment for compliance to specifications and standards
- analyze and compare customer's ongoing needs with applicable technological changes
- analyze related research data
- operate laboratory based data acquisition systems, such as strip chart and computer driven recording hardware
- select appropriate biomedical instrumentation for research chamber flights

demonstrate current technology to management, interested users,
and VIPs
monitor ongoing research protocols
review and collate data for research publications
provide input to systems program office (SPO) for use and
maintenance of prototype equipment

The membership of this II report extremely high indices of "Satisfaction" with their sense of accomplishment from work and find their jobs "Interesting" (100 percent each). Two of the members believe their jobs utilize their talents and training "Fairly Well To Very Well" (67 percent each). All of these incumbents also indicate "Positive" in their perception of career progression opportunities.

ANALYSIS OF DATA BY DAFSC

DAFSC Group Descriptions

A major portion of analysis within any OSR, particularly one with three different AFSCs, is an indepth analysis of the targeted DAFSC, including, but not limited to, such factors as corresponding paygrade groups, selected background data, MAJCOMs of assignment, and TAFMS indices, which are used by the analyst to determine differences and similarities of tasks, numbers of tasks performed, and time spent on duties. Figure 2 presents the distribution of survey sample by AFSCs.

The analysis of the three targeted DAFSCs, paygrade groups, MAJCOM groups, and selected background data indicates both the similarity and diversity of the tasks performed among the survey respondents, particularly in the specialized aerospace physiologist instructions, hypobaric chamber functions, and RDTE&A, and centrifuge training and operations. An indepth analysis and comparison of occupational survey data were made with the appropriate AFR 36-1 and the current duties and tasks performed. These data accurately describe and reflect the jobs of the officers in the 916X, 149XA, and 229XA specialty descriptions. Information from these analyses can and should be used to identify areas which should be included in training and classification documents, such as the CTSs and AFR 36-1 Specialty Descriptions.

On the whole, data analysis confirms there are minor differences between types of duties and tasks performed by the 1495A and 2295A rated officers when compared to the 916X officers. As would be expected, there are differences in percent time spent and percent members performing indices, but overall, the rated officers perform relatively the same tasks and duties as do the nonrated officers whenever they are assigned in the same duty areas. The 916X officers perform duties in RDTE&A (9 percent) and less time accomplishing training duties (47 percent); whereas the 1495A and 2295A rated officers spend a larger percentage of time performing

training and specialized aerospace physiology instructions (68 and 57 percent, respectively). As discussed previously, all rated and nonrated officers spend the majority of their worktime performing whatever those duties are in their specific assignment (centrifuge training, hypobaric, or hyperbaric chambers, etc.).

Representative tasks which show the differentiation in time spent on duties among the DAFSC officers are presented in Table 11. (These indices indicate commonality of time spent performing these tasks.) The most consistent tasks performed across the three DAFSC groups are Performing Specialized Aerospace Physiology Instructions (a high of 41 percent to a low of 14 percent), Management and Supervisory (a high of 30 percent and a low of 20 percent), and Training functions (a high of 14 percent and a low of 12 percent).

AIR FORCE SPECIALTY DISCUSSION

A review of the following additional tables and appendices will assist the user in understanding the various data included in the following discussion of each of the three targeted AFSCs. Table 12 presents selected background characteristics of DAFSC officers, Table 13 illustrates job satisfaction indicators by DAFSC groups, while Table 14 presents level of education and Professional Military Education (PME) school attendance by DAFSC respondents. Appendices C1 to C3 provide representative tasks performed by each of the DAFSC groups.

DAFSC 9161 and 9166 - Aerospace Physiologist Officers. The 65 respondents in DAFSC 916X (9161 (11) and 9166 (54)) comprise 83 percent of the total survey population, which is 78 percent of the eligible 916X officers. The tasks accomplished by these personnel indicate a broad knowledge of a substantial body of principles, concepts, and objectives, while coordinating instruction of personnel in aerospace physiologist and aviation human factors. Since the major focus of the aerospace physiologist officer's worktime is managing aerospace physiological training and hyperbaric therapy units, it is not surprising that the largest percentage of their worktime (47 percent) is spent in the many facets of their training duties. Management and Supervisory functions comprise 44 percent of their job time, followed by 9 percent in related RDTE&A functions.

These 916X officers perform an average of 159 tasks, and 49 percent report supervising from 1 to 10 employees. Twenty percent of the members of this DAFSC are female, and all grades are represented, with the majority of the responding 916X officers being captains (31 percent) followed equally (20 percent) by majors and first lieutenants. Fourteen of the members are lieutenant colonels and colonels (seven each). Sixty-eight percent of the 916X officers have been in their present jobs from 1 to 24 months, with 32 percent having over 25 months, which indicates the expertise of these 916X officers in their duties. In military experience, TAFMS indices indicate that a little less than 50 percent have from 1 to 96 months, 23 percent have 97 to 196 months, and 29 percent have 193+ months of experience. The largest number of the 916X

TABLE 11

AVERAGE PERCENT TIME SPENT ON DUTIES BY
AEROSPACE PHYSIOLOGIST DAFSC OFFICERS
(N=78)

| <u>DUTIES</u> | 916X (N=65) | 1495A (N=10) | 2295A (N=3) |
|---|----------------|-----------------|----------------|
| A. PERFORMING ORGANIZING, PLANNING, AND COMMAND FUNCTIONS | 14% | 8% | 9% |
| B. PERFORMING MANAGEMENT AND SUPERVISORY FUNCTIONS | 30% | 20% | 29% |
| C. PERFORMING INSPECTION AND EVALUATION FUNCTIONS | 4% | 3% | 5% |
| D. PERFORMING TRAINING FUNCTIONS | 14% | 12% | 14% |
| E. PERFORMING SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS AND ACQUISITION FUNCTIONS | 14% | 41% | 30% |
| F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT | - | - | - |
| G. PERFORMING HYPOBARIC CHAMBER FUNCTIONS | 4% | 10% | 7% |
| H. PERFORMING HYPERBARIC CHAMBER FUNCTIONS | 5% | - | 3% |
| I. CONDUCTING PARACHUTE FAMILIARIZATION TRAINING (PFT) | - | 1% | - |
| J. PERFORMING PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS | 2% | 3% | 2% |
| K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS | 2% | - | - |
| L. PERFORMING HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS | - | - | - |
| M. PERFORMING RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION FUNCTIONS | 9% | - | - |

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 12

**SELECTED BACKGROUND CHARACTERISTICS OF AEROSPACE PHYSIOLOGIST
OFFICERS BY DAFSC GROUPS**

| <u>GROUP SIZE</u> | 916X (N=65) | 1495A (N=10) | 2295A (N=3) |
|----------------------------|----------------|-----------------|----------------|
| AVG # OF TASKS | 159 | 118 | 191 |
| MALE | 80% | 90% | 100% |
| FEMALE | 20% | 10% | - |
| OVERSEAS | 12% | 10% | 33% |
| CONUS | 88% | 90% | 67% |
| <u>SUPERVISE</u> | | | |
| 0 | 40% | 20% | 33% |
| 1-5 | 31% | 50% | 67% |
| 6-10 | 18% | - | - |
| 11-24 | 11% | - | - |
| <u>TIME IN PRESENT JOB</u> | | | |
| 1-12 MOS | 40% | 40% | - |
| 13-24 MOS | 28% | 50% | 67% |
| 25-36 MOS | 20% | 10% | - |
| 37-219 MOS | 12% | - | - |
| <u>OFFICER GRADE</u> | | | |
| O1 | 8% | - | - |
| O2 | 20% | - | - |
| O3 | 31% | 40% | 67% |
| O4 | 20% | 50% | - |
| O5 | 11% | 10% | 33% |
| O6 | 11% | - | - |

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 12 (CONTINUED)

**SELECTED BACKGROUND CHARACTERISTICS OF AEROSPACE PHYSIOLOGIST
OFFICERS BY DAFSC GROUPS**

| <u>GROUP SIZE</u> | <u>916X</u> <u>(N=65)</u> | <u>1495A</u> <u>(N=10)</u> | <u>2295A</u> <u>(N=3)</u> |
|-----------------------------------|------------------------------|-------------------------------|------------------------------|
| <u>TAFMS</u> | | | |
| 1-24 MOS | 12% | - | - |
| 25-48 MOS | 15% | - | - |
| 49-96 MOS | 20% | 30% | 67% |
| 97+ MOS | 52% | 80% | 33% |
| <u>MAJCOM</u> | | | |
| USAFA | 3% | - | - |
| USAFE | 6% | - | - |
| AETC | 12% | 5% | - |
| PACAF | 5% | 1% | - |
| ACC | 23% | 2% | 1% |
| AMC | 12% | - | 2% |
| AFMC | 31% | 2% | - |
| AFELM OTHER | 8% | - | - |
| <u>AERONAUTICAL RATING STATUS</u> | | | |
| NONRATED | 100% | - | - |
| PILOT IN RATED SUPPLEMENT | - | 80% | - |
| PILOT IN NONRATED SUPPLEMENT | - | 20% | - |
| NAVIGATOR IN RATED SUPPLEMENT | - | - | 100% |
| NAVIGATOR IN NONRATED SUPPLEMENT | - | - | - |

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 13

**JOB SATISFACTION INDICATORS OF AEROSPACE PHYSIOLOGIST OFFICERS
BY DAFSC**

| | <u>ALL DAFSC OFS (N=78)</u> | <u>916X (N=65)</u> | <u>1495A (N=10)</u> | <u>2295A (N=3)</u> |
|--|---------------------------------|------------------------|-------------------------|------------------------|
| <u>EXPRESSED JOB INTEREST:</u> | | | | |
| INTERESTING | 91% | 94% | 80% | 67% |
| SO-SO | 6% | 5% | 10% | 33% |
| DULL | 1% | 2% | - | - |
| <u>PERCEIVED UTILIZATION OF TALENTS:</u> | | | | |
| EXCELLENT TO PERFECT | 35% | 35% | 30% | 33% |
| FAIRLY WELL TO VERY WELL | 62% | 60% | 70% | 67% |
| VERY LITTLE OR NOT AT ALL | 4% | 5% | - | - |
| <u>PERCEIVED UTILIZATION OF TRAINING:</u> | | | | |
| EXCELLENT TO PERFECT | 35% | 35% | 30% | 33% |
| FAIRLY WELL TO VERY WELL | 60% | 60% | 60% | 67% |
| VERY LITTLE OR NOT AT ALL | 5% | 5% | 10% | - |
| <u>SENSE OF ACCOMPLISHMENT:</u> | | | | |
| SATISFIED | 91% | 92% | 80% | 100% |
| NEUTRAL | 4% | 2% | 20% | - |
| DISSATISFIED | 5% | 6% | - | - |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or no response

TABLE 14

AEROSPACE PHYSIOLOGIST OFFICERS
LEVEL OF EDUCATION AND PME ATTENDANCE
BY DAFSC GROUPS

| | 916X (N=65) | 1495A (N=10) | 2295A (N=3) |
|---------------------------|----------------|-----------------|----------------|
| BACHELOR'S +, NO MASTER'S | 33% | 60% | 67% |
| MASTER'S DEGREE | 46% | 20% | - |
| MASTER'S +, NO ADV DEGREE | 2% | 20% | 33% |
| DOCTORAL LEVEL | 14% | - | - |
| POST DOCTORAL | 6% | - | - |

WHAT PROFESSIONAL MILITARY EDUCATION
COURSES (PME) HAVE YOU ATTENDED?

PME COURSE ATTENDED

| | | | |
|--|-----|-----|-----|
| SQUADRON OFFICERS SCHOOL (SOS) | 46% | 80% | 67% |
| AIR COMMAND AND STAFF COLLEGE OR EQUIVALENT | 32% | 50% | 33% |
| AIR WAR COLLEGE OR EQUIVALENT | 15% | 10% | - |
| INDUSTRIAL COLLEGE, ARMED FORCES, OR EQUIVALENT | - | - | - |

- Less than 1 percent or no response

officers are stationed in AFMC (31 percent), ACC (23 percent), or AETC and AMC (12 percent each).

The 916X officers have the highest indices of the Aerospace Physiologist respondents in finding their jobs "Interesting" (94 percent) and in reporting high job satisfaction with their sense of accomplishment from work (92 percent). Over half of the members believe their job utilizes their talents "Fairly Well To Very Well" (60 percent), as well as utilizing their training "Fairly Well To Very Well" (60 percent). None of the 916X respondents report being rated. Eighty-three percent indicate their career plans are to remain in the 916X utilization field, with only 11 percent indicating they would crosstrain, while 2 percent indicate they will separate. These 916X officers also perceive their career progression more positively (78 percent) than do the other DAFSC Aerospace Physiologist officers. Sixty-eight percent of the members report having higher level (master, doctoral, and post-doctoral) degrees.

DAFSCs 14X1A and 14X5A - Air Operations Officer, Pilot. The 10 officers in this DAFSC account for 13 percent of the population sample. They perform an average of 118 tasks, which are the smallest number of tasks performed by the aerospace physiologist DAFSC personnel. The tasks accomplished by the 1495A respondents indicate a broad knowledge of aviation operations and management activities which they use in conducting and coordinating specialized aerospace physiology instructions, training, and hypobaric chamber functions.

One of the respondents in the 1495A DAFSC is female. There are no lieutenants or colonels included among these respondents who report the largest percentage of members supervising (80 percent) other personnel. The membership of this DAFSC includes five majors, four captains, and one lieutenant colonel. These 10 officers spend the largest proportion of their worktime performing tasks in 5 duties (68 percent) instructing aerospace physiology and aviation human factors, while the remaining 32 percent of their worktime occupies tasks in the other 8 duties.

Ninety percent of the officers have been in their present job from 1 to 24 months, with 10 percent reporting 25 to 36 months. In military experience, however, their TAFMS indices indicate a larger expertise, with 40 percent reporting from 49 to 144 months and 60 percent from 145 to 240 months. Ninety percent of the members are stationed in CONUS, in either AETC (50 percent) and ACC or AFMC (20 percent each). One hundred percent of the members reported being rated.

Eighty percent of these officers find their job "Interesting," believe their job utilizes their talents "Fairly Well To Very Well" (70 percent), and also believe their job utilizes their training "Fairly Well To Very Well" (60 percent). Eighty percent of the members note they are "Satisfied" with their sense of accomplishment from their work. Forty percent report they will leave the 1495A utilization field, and 50 percent indicate they believe their career progression is "not positive." Forty percent of the membership report having a master's or master's-plus degree.

DAFSCs 2295A - Air Operations Officer, Navigator. The three 2295A officer respondents represent 4 percent of the population survey. Like their counterpart-rated officers, they spend the largest portion of their job time (57 percent) instructing aerospace physiology and aviation human factors and 43 percent performing tasks in the other eight duties. These incumbents perform the largest average number of tasks performed by any members of the sample group (113 tasks). This membership is male respondents and is represented by one lieutenant colonel and two captains. Two members report supervising from one to five personnel, and two of the incumbents report being in their current position from 13 to 24 months, while one member reports from 37 to 48 months. Their military expertise, as indicated by TAFMS, for the two captains is 49 to 96 months and 193 to 360 months for the lieutenant colonel. Two of the officers are stationed in CONUS at either AMC or ACC bases.

The highest indices reported by these 2295A respondents in regard to their duties are in the medium-high ranges: "Interesting Job" (67 percent); responses in the "Fairly Well To Very Well" category in both "Utilization of Talents" (67 percent), and "Utilization of Training" (67 percent). In sense of accomplishment from work, these members report 100 percent "Satisfied." Two of the members perceive their career progression opportunities as positive. Two officers plan to remain in the 2295A utilization field, and one officer indicates an interest in career broadening. All three members are rated Navigators, and one member indicates having a master's degree.

ANALYSIS OF AEROSPACE PHYSIOLOGIST UTILIZATION FIELD

Another major portion of an OSR, which includes three AFSCs, is an indepth analysis of the utilization field as a whole. Again, factors include, but are not limited to, selected background data, MAJCOM of assignment, TAFMS, and paygrade groups which are used by the analyst to determine differences and similarities of tasks, number of tasks performed, and time spent on duties.

A total of 78 officers responded to the 916X, 149XA, and 229XA Aerospace Physiologist USAF JI. The following narrative provides data regarding the group as a whole, which naturally follows and validates the specific data provided above on each of the individual DAFSCs. Information from these analyses can be used to identify areas which should be used in training and classification documents, such as CTSs and AFR 36-1 Specialty Descriptions. The user should also be able to perform both overall Aerospace Physiologist utilization field and individual DAFSC comparisons by using the comprehensive narratives, figures, tables, and appendices provided throughout the OSR.

The 78 officers included in this study perform an average of 155 tasks, with 107 tasks accounting for the majority of their worktime. Eighty-two percent of the field responses are from males and 18 percent are from female officers. The tasks performed by the overall group indicates a broad knowledge of the Aerospace Physiologist utilization field whose focus is to

manage aerospace physiology training and hyperbaric therapy units, and instruct personnel in aerospace physiological and aviation human factors. Of all members responding to the study, a large portion of their worktime is spent performing Management and Supervisory functions (29 percent), Specialized Aerospace Physiology Instructions (18 percent), Training (29 percent), and Organizing, Planning, and Command functions (17 percent). Table 15 illustrates the average percent time spent on all 13 duties, as well as number of total tasks included in each duty.

Selected background characteristics of the 78 officers included in the study are presented in Table 16. The membership of the survey group is 18 lieutenants (02 - 5, 01 - 13), 26 captains (which is the largest representation of all officers), 18 majors, 9 lieutenant colonels, and 7 colonels. Only 37 percent of the members do not supervise other personnel. Generally, an average of 70 percent have been in their present job from 1 to 24 months, while 27 percent average 25 to 48 months, and only 3 percent report 49+ months' experience. TAFMS indices are much higher, with 23 percent of the officers reporting 1 to 48 months, 32 percent reporting 49 to 144 months, and 44 percent reporting 145 to 316 months' service. Table 17 presents average percent time spent on duties by TAFMS groups.

The 65 916X DAFSC members comprise 83 percent of the sample population. The 10 DAFSC 1495A Air Operations Officer - Pilot Aerospace Physiological Support officers represent 13 percent, while the three DAFSC 2295A Air Operations officers - Navigator Aerospace Physiological Support officers represent 4 percent of the survey population. Responses from the 78 officers indicate they are assigned mostly to 7 operating agencies, with AFMC (28 percent), ACC (23 percent), and AETC (17 percent) indicating the highest indices. The 13 percent of the membership (10) who are stationed at OS commands report being in USAFE or PACAF (5 percent each). Table 18 reports average percent time spent on duties by MAJCOM groups. Average percent time spent by CONUS and OS members are provided in Table 19. Representative tasks performed by MAJCOM, CONUS, and OS groups are presented in Appendices D1 through D10.

The overall job satisfaction indices are relatively high for the total respondents. Ninety-one percent of the Aerospace Physiologist officers find their jobs "Interesting" and are "Satisfied" with their sense of accomplishment from their work. The utilization of talents and training indices are medium-high at 62 and 60 percent, respectively, in the "Fairly Well To Well" indices. Review DAFSC job satisfaction indices individually and as a group in Table 13.

The 78 members who participated in the study indicate a high level of educational interest in that 46 percent report having master's or master's plus, 12 percent doctoral level, and 5 percent post-doctoral degrees. Considering the grades of the officers, attendance at the PME schools is also positive, with 51 percent having attended Squadron Officers School, 35 percent having attended Air Command and Staff College, and 14 percent having attended Air War College.

TABLE 15

AVERAGE PERCENT TIME SPENT ON DUTIES
BY AEROSPACE PHYSIOLOGIST OFFICERS

| <u>DUTIES</u> | <u># OF TASKS</u> | <u>AVERAGE PERCENT</u> |
|---|-------------------|------------------------|
| A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS | 80 | 13% |
| B. MANAGEMENT AND SUPERVISORY FUNCTIONS | 205 | 29% |
| C. INSPECTION AND EVALUATION FUNCTIONS | 59 | 4% |
| D. TRAINING FUNCTIONS | 97 | 14% |
| E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS | 45 | 18% |
| F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS | 23 | - |
| G. HYPOBARIC CHAMBER FUNCTIONS | 18 | 6% |
| H. HYPERBARIC CHAMBER FUNCTIONS | 48 | 4% |
| I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS | 24 | - |
| J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS | 54 | 2% |
| K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS | 41 | 2% |
| L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAAMS) FUNCTIONS | 30 | - |
| M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS | 94 | 8% |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 16

SELECTED BACKGROUND CHARACTERISTICS OF TOTAL AEROSPACE
PHYSIOLOGIST OFFICERS

GROUP SIZE - 78

AVG # OF TASKS - 155

MALE - 82%

FEMALE - 18%

OVERSEAS - 13%

CONUS - 87%

OFFICER GRADE

O1 - 6%

O2 - 17%

O3 - 33%

O4 - 23%

O5 - 12%

O6 - 9%

SUPERVISE

0 - 37%

1-5 - 35%

6-10 - 15%

11-24 - 13%

TIME IN PRESENT JOB

1-12 MOS - 38%

13-24 MOS - 32%

25-36 MOS - 18%

37-219 MOS - 12%

TAFMS

1-24 MOS - 38%

25-48 MOS - 13%

49-96 MOS - 23%

97+ MOS - 12%

DAFSCs

9161 - 14%

9166 - 69%

1495A - 13%

2295A - 4%

MAJCOM

USAFA - 3%

USAFE - 5%

AETC - 17%

AFOTEC - 3%

PACAF - 5%

ACC. - 23%

AMC - 13%

AFMC - 28%

OTHER - 4%

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 17

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES
BY TOTAL ACTIVE FEDERAL MILITARY SERVICE (TAFMS) AEROSPACE
PHYSIOLOGIST OFFICERS

| <u>DUTIES</u> | <u>1 - 48 MOS</u> | <u>49 - 96 MOS</u> | <u>97+ MOS</u> |
|---|-------------------|--------------------|----------------|
| A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS | 7% | 12% | 15% |
| B. MANAGEMENT AND SUPERVISORY FUNCTIONS | 25% | 26% | 32% |
| C. INSPECTION AND EVALUATION FUNCTIONS | 2% | 3% | 5% |
| D. TRAINING FUNCTIONS | 18% | 11% | 12% |
| E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS | 21% | 16% | 16% |
| F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS | - | - | - |
| G. HYPOBARIC CHAMBER FUNCTIONS | 6% | 6% | 5% |
| H. HYPERBARIC CHAMBER FUNCTIONS | 4% | 5% | 3% |
| I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS | - | - | - |
| J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTION | 4% | 2% | 1% |
| K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS | - | 4% | 1% |
| L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS | 1% | - | - |
| M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS | 9% | 7% | 1% |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 18

AVERAGE PERCENT TIME SPENT ON DUTIES
BY AEROSPACE PHYSIOLOGY OFFICERS IN MAJCOM GROUPS

| DUTIES | USAF (N=2) | AETC (N=13) | ACC (N=18) | AMC (N=10) | AFMC (N=22) | USAF (N=4) | PACAF (N=4) |
|---|---------------|----------------|---------------|---------------|----------------|---------------|----------------|
| A. PERFORMING ORGANIZING, PLANNING, AND COMMAND FUNCTIONS | 16% | 8% | 11% | 9% | 15% | 23% | 13% |
| B. PERFORMING MANAGEMENT AND SUPERVISORY FUNCTIONS | 27% | 21% | 30% | 25% | 31% | 37% | 28% |
| C. PERFORMING INSPECTION AND EVALUATION FUNCTIONS | - | 4% | 4% | 6% | 4% | 2% | 5% |
| D. PERFORMING TRAINING FUNCTIONS | 23% | 20% | 16% | 19% | 7% | 10% | 19% |
| E. PERFORMING SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS | 29% | 29% | 20% | 22% | 13% | 15% | 18% |
| F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT | - | - | - | - | 1% | - | - |
| G. PERFORMING HYPOBARIC CHAMBER FUNCTIONS | 3% | 9% | 5% | 6% | 4% | 4% | 6% |
| H. PERFORMING HYPERBARIC CHAMBER FUNCTIONS | - | 1% | 3% | 6% | 5% | 2% | 7% |
| I. CONDUCTING PARACHUTE FAMILIARIZATION TRAINING (PFT) | - | 2% | - | - | - | - | - |
| J. PERFORMING PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS | - | 2% | 4% | 2% | - | 2% | 3% |
| K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS | - | - | 5% | - | - | - | - |
| L. PERFORMING HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS | - | - | - | 2% | - | - | - |
| M. PERFORMING RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION FUNCTIONS | - | 2% | 2% | 3% | 19% | 5% | - |

- Under 1 percent or nonresponse

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 19

**AVERAGE PERCENT TIME SPENT ON DUTIES BY AEROSPACE PHYSIOLOGICAL
OFFICERS IN CONUS AND OVERSEAS**

| <u>DUTIES</u> | <u>CONUS</u> <u>(N=68)</u> | <u>OVERSEAS</u> <u>(N=10)</u> |
|---|-------------------------------|----------------------------------|
| A. PERFORMING ORGANIZING, PLANNING, AND COMMAND FUNCTIONS | 12% | 20% |
| B. PERFORMING MANAGEMENT AND SUPERVISORY FUNCTIONS | 28% | 33% |
| C. PERFORMING INSPECTION AND EVALUATION FUNCTIONS | 4% | 3% |
| D. PERFORMING TRAINING FUNCTIONS | 14% | 13% |
| E. PERFORMING SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS | 19% | 14% |
| F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT | - | - |
| G. PERFORMING HYPOBARIC CHAMBER FUNCTIONS | 6% | 4% |
| H. PERFORMING HYPERBARIC CHAMBER FUNCTIONS | 4% | 4% |
| I. CONDUCTING PARACHUTE FAMILIARIZATION TRAINING (PFT) | - | - |
| J. PERFORMING PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS | 2% | 2% |
| K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS | 2% | - |
| L. PERFORMING HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS | - | - |
| M. PERFORMING RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION FUNCTIONS | 8% | 5% |

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

Analysis of Aerospace Physiologist AFSC Data by Paygrade Groups

Within the analysis of the Aerospace Physiologist utilization field as a whole are the comparisons of paygrade groups within the selected DAFSCs using data such as time spent or percent members performing tasks.

Overall, the comparison of the representative tasks performed by the paygrade groups indicates the normal career progression relationships which develop between paygrade groups when similar tasks are performed. The analysis also verifies that there is a definitive broadening of duties and responsibilities when officers are promoted to higher level or staff-level paygrades, where the majority of their job time is spent performing Organizing, Planning, Command, Management, and Supervisory functions.

Table 20 presents data comparing and illustrating the similarities and differences between each of the paygrade groups. An assessment of the sorted difference columns for the representative tasks performed by each paygrade group clearly delineates the similarities and the differences between the types of tasks performed, the percent members performing, levels of performance, and the respective progression within the paygrade groups.

For further clarification, Table 21 provides the 13 major duties and the average percent time spent performing such duties by the compared paygrade groups. Colonels and lieutenant colonels spend the largest amount of their worktime performing Management and Supervisory functions (38 and 33 percent, respectively), while majors and colonels are involved in Organizing, Planning, and Command functions (31 and 24 percent, respectively). As would be expected in this utilization field where the major focuses are managing aerospace physiology training and hyperbaric therapy units, and instructing personnel in aerospace physiological and aviation human factors, a larger percentage of the officer personnel spends their duty time performing Specialized Aerospace Physiologist Instructions, Training, and the corresponding associated functions.

Selected background characteristics of paygrade groups are presented in Table 22. Higher ranking officers represent 44 percent of the overall respondents (majors - 23 percent, lieutenant colonels - 12 percent, and colonels - 9 percent). The largest number of respondents in the survey sample are the 26 captains (33 percent). Second lieutenants comprise the smallest group represented (6 percent), while first lieutenants account for 17 percent of the population.

Eighteen percent of the Aerospace Physiologist officers are female. The majority of the incumbents supervise other personnel, with the highest percent being lieutenant colonels (100 percent), followed by majors (78 percent), and colonels (71 percent). It is interesting to note that in this utilization field, the higher ranking officers appear to be "hands on" supervisors and managers, since data show the largest numbers of tasks performed among all incumbents in the study are performed by them (colonels - 272, lieutenant colonels - 235, and majors - 184). As would be expected of the newest members in training status, second lieutenants perform the least number of tasks (45).

TABLE 20

**REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN AEROSPACE
PHYSIOLOGIST O1 AND O2 OFFICER PAYGRADES
(PERCENT MEMBERS PERFORMING (PMP))**

| <u>TASKS</u> | <u>O-1 (N=5)</u> | <u>O-2 (N=13)</u> | <u>DIFF</u> |
|---|-----------------------------|------------------------------|--------------------|
| D359 Complete inprocessing or outprocessing training checklists | 40% | 0% | 40% |
| M81 Perform outside observer functions on research chamber flights | 20% | 8% | 32% |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 80% | 62% | 18% |
| M789 Monitor clinical investigations research projects | 20% | 0% | 20% |
| M811 Prepare research protocols in compliance with animal or human use directives | 20% | 0% | 20% |
| K691 Monitor console profiles and inner gondola TV screens during centrifuge profile runs | 20% | 0% | 20% |
| A88 Evaluate procedures for storage or inventory of property items | 20% | 0% | 20% |
| D378 Critique student test results with students | 0% | 69% | -69% |
| D365 Conduct periodic checks of qualified team members' proficiency | 0% | 69% | -69% |
| G526 Perform inside observer functions during hypobaric proficiency flights | 20% | 85% | -65% |
| B140 Counsel personnel on career, personal, or military-related problems | 0% | 69% | -69% |
| G513 Brief trainees prior to chamber flights to prevent unwarranted chamber reactions | 20% | 77% | -57% |

TABLE 20 (CONTINUED)

**REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN AEROSPACE
PHYSIOLOGIST O2 AND O3 OFFICER PAYGRADES
(PERCENT MEMBERS PERFORMING (PMP))**

| <u>TASKS</u> | <u>O-2</u> <u>(N=13)</u> | <u>O-3</u> <u>(N=26)</u> | <u>DIFF</u> |
|--|-------------------------------------|-------------------------------------|--------------------|
| B169 Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record) | 85% | 27% | 58% |
| E451 Conduct classroom instruction on chamber flights | 85% | 42% | 43% |
| B161 Direct storage of restricted items, such as medical security controlled items | 38% | 0% | 38% |
| C313 Document and address hyperbaric QA/RM issues at monthly meetings | 38% | 4% | 34% |
| H540 Perform high-altitude rapid decompression training | 31% | 0% | 31% |
| E468 Conduct classroom training on principles of aircraft navigation and weather | 0% | 27% | -27% |
| A38 Determine requirements for personnel, workspace, equipment and supplies | 15% | 38% | -23% |
| M804 Perform routine research functions, such as investigative or research assistant | 0% | 19% | -19% |
| A35 Determine annual student training requirements | 8% | 19% | -19% |
| H569 Review periodic inspection documentation of hyperbaric chamber assemblies | 0% | 12% | -12% |

TABLE 20 (CONTINUED)

**REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN
AEROSPACE PHYSIOLOGIST O3 AND O4 OFFICER PAYGRADES
(PERCENT MEMBERS PERFORMING (PMP))**

| <u>TASKS</u> | <u>O-3</u> (N=26) | <u>O-4</u> (N=18) | <u>DIFF</u> |
|--|-------------------------------------|-------------------------------------|--------------------|
| E447 Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge | 27% | 11% | 16% |
| B176 Evaluate contract performance requirements | 15% | 0% | 15% |
| M741 Approve or disapprove requests for special customer needs | 12% | 0% | 12% |
| B264 Schedule special aerospace physiology orientation programs, such as for hyperbaric chambers | 27% | 17% | 10% |
| G523 Operate diagnostic devices in hypobaric chambers | 27% | 17% | 10% |
| B134 Coordinate manning requirements with HQs, MAJCOMs, and other designated agencies | 4% | 50% | -46% |
| A57 Evaluate personnel under operational conditions | 27% | 72% | -45% |
| B116 Certify starting or stopping of hazardous duty incentive pay for team members | 19% | 61% | -42% |
| C298 Coordinate resolutions of problems identified during inspections with subordinate personnel | 12% | 50% | -38% |
| D381 Determine if training for assigned courses follows established policies and directives | 12% | 44% | -32% |

TABLE 20 (CONTINUED)

**REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN
AEROSPACE O4 AND O5 OFFICER PAYGRADES
(PERCENT MEMBERS PERFORMING (PMP))**

| <u>TASKS</u> | <u>O-4</u> <u>(N=18)</u> | <u>O-5</u> <u>(N=9)</u> | <u>DIFF</u> |
|---|-------------------------------------|------------------------------------|--------------------|
| A56 Evaluate operational activity reports | 39% | 0% | 39% |
| D393 Direct construction of required training mockups | 33% | 0% | 33% |
| H528 Brief individuals on chamber operations and policies | 56% | 33% | 23% |
| A43 Direct preparation of bulletins or memoranda pertaining to aerospace physiology operations | 33% | 11% | 22% |
| H556 Participate in hyperbaric research dives | 22% | 0% | 22% |
| E479 Indoctrinate aircrews on associated procedures of chemical defense equipment | 0% | 44% | -44% |
| B196 Initiate personnel action requests, such as AF Forms 2095 (Assignment/Personnel Action) | 6% | 44% | -38% |
| B163 Endorse and upchannel contractor performance evaluations | 0% | 33% | -33% |
| M792 Negotiate budgets with outside agencies for RDT&E projects | 0% | 33% | -33% |
| D402 Direct physiological training programs, such as for hypobaric technology | 6% | 33% | -27% |

TABLE 20 (CONTINUED)

**REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN
AEROSPACE PHYSIOLOGIST O5 AND O6 OFFICER PAYGRADES
(PERCENT MEMBERS PERFORMING (PMP))**

| <u>TASKS</u> | <u>O5</u> <u>(N=9)</u> | <u>O6</u> <u>(N=7)</u> | <u>DIFF</u> |
|---|---------------------------|---------------------------|-------------|
| D390 Develop training programs for new systems or equipment | 44% | 0% | 44% |
| E443 Brief or demonstrate physiological aids used in flying, such as survival equip or ejection seats | 56% | 14% | 42% |
| M778 Establish and maintain approved protocol files | 33% | 0% | 33% |
| M751 Conduct human use protocols | 33% | 0% | 33% |
| E474 Conduct pre- or postflight briefings following chamber flights | 44% | 14% | 30% |
| D385 Develop course curricula or plans of instruction (POIs) | 22% | 100% | -78% |
| D430 Research technical materials used in training courses | 11% | 68% | -75% |
| B135 Coordinate mission activities with other military services, civilian agencies, & international forces | 22% | 86% | -64% |
| G525 Perform inside instructor functions in hypobaric chambers | 44% | 100% | -56% |
| B179 Evaluate effectiveness of operations and training programs | 33% | 86% | -53% |

TABLE 21

AVERAGE PERCENT TIME SPENT ON DUTIES
BY AEROSPACE PHYSIOLOGIST PAYGRADE GROUPS

| DUTIES | PAYGRADE GROUPS | | | | | |
|---|-----------------|---------------|---------------|---------------|--------------|--------------|
| | O-1 (N=5) | O-2 (N=13) | O-3 (N=26) | O-4 (N=18) | O-5 (N=9) | O-6 (N=7) |
| A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS | 9% | 6% | 10% | 31% | 17% | 24% |
| B. MANAGEMENT AND SUPERVISORY FUNCTIONS | 26% | 27% | 25% | 16% | 33% | 38% |
| C. INSPECTION AND EVALUATION FUNCTIONS | - | 3% | 3% | 6% | 4% | 7% |
| D. TRAINING FUNCTIONS | 14% | 19% | 13% | 12% | 11% | 5% |
| E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS | 22% | 23% | 24% | 13% | 12% | 8% |
| F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS | 1% | - | - | - | - | - |
| G. HYPOBARIC CHAMBER FUNCTIONS | 6% | 7% | 7% | 5% | 5% | 3% |
| H. HYPERBARIC CHAMBER FUNCTIONS | 2% | 4% | 4% | 5% | 3% | 2% |
| I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS | - | - | - | - | - | - |
| J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTION | 3% | 5% | 2% | 1% | - | 2% |
| K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS | 1% | - | 3% | - | 2% | - |
| L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS | - | 1% | - | - | - | - |
| M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS | 15% | 3% | 9% | 9% | 10% | - |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 22

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

| <u>GROUP SIZE</u> | O-1 (N=5) | O-2 (N=13) | O-3 (N=26) | O-4 (N=18) | O-5 (N=9) | O-6 (N=7) |
|-------------------|--------------|---------------|---------------|---------------|--------------|--------------|
| AVG # OF TASKS | 45 | 128 | 110 | 185 | 235 | 272 |
| MALE | 60% | 69% | 85% | 83% | 89% | 100% |
| FEMALE | 40% | 31% | 15% | 17% | 11% | - |
| OVERSEAS | - | 15% | 12% | 6% | 33% | 14% |
| CONUS | 100% | 85% | 88% | 94% | 67% | 89% |
| <u>SUPERVISE</u> | | | | | | |
| 0 | 60% | 46% | 54% | 22% | - | 29% |
| 1-5 | 20% | 23% | 38% | 22% | 67% | 43% |
| 6-10 | 20% | 23% | 8% | 28% | - | 14% |
| 11-24 | - | 8% | - | 22% | 33% | 14% |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 22 (CONTINUED)

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

| <u>GROUP SIZE</u> | | O-1 (N=5) | O-2 (N=13) | O-3 (N=26) | O-4 (N=18) | O-5 (N=9) | O-6 (N=7) |
|----------------------------|--|--------------|---------------|---------------|---------------|--------------|--------------|
| <u>TIME IN PRESENT JOB</u> | | | | | | | |
| 1-12 MOS | | 100% | 46% | 46% | 17% | 22% | 29% |
| 13-24 MOS | | - | 38% | 23% | 44% | 44% | 29% |
| 25-36 MOS | | - | 15% | 27% | 22% | 11% | - |
| 37-219 MOS | | - | - | 4% | 17% | 22% | 43% |
| <u>TAFMS</u> | | | | | | | |
| 1-24 MOS | | 60% | 31% | 4% | - | - | - |
| 25-48 MOS | | - | 54% | 12% | - | - | - |
| 49-96 MOS | | 40% | 8% | 58% | - | - | - |
| 97+ MOS | | - | 8% | 27% | 100% | 100% | 100% |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 22 (CONTINUED)

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

| <u>GROUP SIZE</u> | <u>O-1</u> (N=5) | <u>O-2</u> (N=13) | <u>O-3</u> (N=26) | <u>O-4</u> (N=18) | <u>O-5</u> (N=9) | <u>O-6</u> (N=7) |
|-------------------|---------------------|----------------------|----------------------|----------------------|---------------------|---------------------|
| <u>DAFSC</u> | | | | | | |
| 9161 | 80% | 31% | 12% | - | - | - |
| 9166 | 20% | 69% | 65% | 72% | 78% | 100% |
| 1495A | - | - | 15% | 28% | 11% | - |
| 2295A | - | - | 8% | - | 11% | - |
| <u>MAJCOM</u> | | | | | | |
| USAFA | - | - | 4% | - | - | 14% |
| USAFE | - | 8% | - | 6% | 11% | 14% |
| AETC | 20% | 15% | 19% | 28% | - | - |
| AFOTEC | 3% | - | - | - | - | - |
| PACAF | - | 8% | 8% | - | 11% | - |
| ACC | 20% | 38% | 15% | 22% | 22% | 29% |
| AMC | - | 15% | 19% | 6% | 11% | 14% |
| AFMC | 60% | 15% | 27% | 22% | 44% | 29% |
| AFELM OTHER | - | - | 8% | 18% | 9% | 7% |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 22 (CONTINUED)

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

| <u>GROUP SIZE</u> | 0-1 (N=5) | 0-2 (N=13) | 0-3 (N=26) | 0-4 (N=18) | 0-5 (N=9) | 0-6 (N=7) |
|-----------------------------------|--------------|---------------|---------------|---------------|--------------|--------------|
| <u>AERONAUTICAL RATING STATUS</u> | | | | | | |
| NONRATED | 100% | 100% | 77% | 72% | 78% | 100% |
| PILOT IN RATED SUPPLEMENT | - | - | 15% | 22% | - | - |
| PILOT IN NONRATED SUPPLEMENT | - | - | - | 6% | 11% | - |
| NAVIGATOR IN RATED SUPPLEMENT | - | - | 8% | - | 11% | - |
| NAVIGATOR IN NONRATED SUPPLEMENT | - | - | - | - | - | - |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

Time in present job indices indicate that colonels report from 37 to 219 months' expertise (43 percent) and second lieutenants report the least (100 percent from 1 to 12 months). Almost all of the first lieutenants and captains indicate they have at least 36 months in their present positions (99 and 96 percent, respectively).

Overall, Job Satisfaction Indicators of Aerospace Physiologist paygrade groups (Table 23) indicate that the respondents report extremely high indices in finding their job "interesting" (a low of 77 percent to a high of 100 percent). On the average, the indices show that colonels, majors, and second lieutenants (100 percent each) are extremely "Satisfied" with their sense of accomplishment from work. Utilization of talents and training indices of "Fairly Well To Very Well" are still in medium-high average ranges of 75 and 66 percent, respectively. Appendices E1 through E6 present Representative Tasks Performed by Aerospace Physiologist Officers by Paygrade Groups.

OFFICER TRAINING ANALYSIS

Since occupational survey data provide several sources of information which can be used to ensure that training programs are more relevant and meaningful to students, the following two products were used to help evaluate training documents.

(1) Training Emphasis data (see SURVEY METHODOLOGY SECTION),

(2) Match of Aerospace Physiologist Course Training Standards and Aerospace Physiologist JI

The Aerospace Physiologist CTS for B30BY9161-000 AEROSPACE PHYSIOLOGIST course, dated January 1993, was examined by the analyst and technical school course supervisor at Brooks AFB TX. The 828 tasks included in the Aerospace Physiological USAFOMS JI administered to the field were matched with the appropriate sections of the above CTS. It is upon this CTS matching completed in July 1993 that comparisons of the following documents are made. Complete computer printouts of these documents, such as a Training Extract and an Analysis Extract are furnished to and maintained by the technical training school for their further review and use. Summary data of this documentation are presented below.

Course Training Standard Analysis

Review of the TE data and percent members performing data for tasks matched to the CTS revealed that the content of the CTS is highly supported by the survey data. Task knowledge and performance codes assigned to the 10 elements of the CTS were also reviewed.

TABLE 23

**AEROSPACE PHYSIOLOGIST OFFICERS
JOB SATISFACTION INDICATORS BY PAYGRADE GROUPS**

| | <u>GRADES</u> | | | | | |
|--|---------------|---------------|---------------|---------------|--------------|--------------|
| | O-1 (N=5) | O-2 (N=13) | O-3 (N=26) | O-4 (N=18) | O-5 (N=9) | O-6 (N=7) |
| <u>EXPRESSED JOB INTEREST:</u> | | | | | | |
| INTERESTING | 100% | 77% | 92% | 94% | 89% | 100% |
| SO-SO | - | 15% | 8% | - | 11% | - |
| DULL | - | 8% | - | - | - | - |
| <u>PERCEIVED UTILIZATION OF TALENTS:</u> | | | | | | |
| EXCELLENT TO PERFECT | 20% | 23% | 27% | 50% | 44% | 43% |
| FAIRLY WELL TO VERY WELL | 80% | 62% | 69% | 50% | 56% | 57% |
| VERY LITTLE OR NOT AT ALL | - | 15% | 4% | - | - | - |
| <u>PERCEIVED UTILIZATION OF TRAINING:</u> | | | | | | |
| EXCELLENT TO PERFECT | 20% | 15% | 23% | 50% | 33% | 86% |
| FAIRLY WELL TO VERY WELL | 60% | 77% | 73% | 50% | 56% | 14% |
| VERY LITTLE OR NOT AT ALL | 20% | 8% | 4% | 0% | 11% | 0% |
| <u>SENSE OF ACCOMPLISHMENT:</u> | | | | | | |
| SATISFIED | 100% | 85% | 88% | 100% | 78% | 100% |
| NEUTRAL | - | - | 4% | - | 22% | - |
| DISSATISFIED | - | 15% | 8% | - | - | - |

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

The analysis indicated that although all elements were matched, a review of several subelements may be needed by the training personnel at the tech school. Although tasks with average to high TE ratings were matched to all elements during the CTS matching, a review of the 88 tasks with high TE ratings by the 22 TE field raters indicates that other elements could eventually be added to the curricula, if only in an overview status. A number of tasks matched to task knowledge and performance elements have high percent members performing and above average TE.

Additional review of a few CTS paragraphs with subject-knowledge codes indicates that TE indices and percent members performing for these elements definitely support a review of and probable increase in proficiency level, as well as a review of the course content within the CTS. Table 24 presents examples of several CTS elements with the majority of the tasks matched being above average in TE ratings.

Aerospace Physiologist officers perform specialized jobs, such as Hypobaric Chamber Operations, Centrifuge Training and Operations, Life Support Systems, HAAMS, and RDTE&A, which are not taught in a resident technical school environment, because they require specialized equipment and job experienced training personnel. It was not unexpected, therefore, that the USAF Aerospace Physiologist II included a large number of tasks that were NOT MATCHED to the CTS elements. USAFOMS recommends that the NOT MATCHED tasks, particularly those with very high TE ratings be reviewed by USAFSAM staff to determine which of those tasks should be included in ongoing CTS and POI revisions or new courses slated for the future. Representative tasks NOT MATCHED to CTS elements, which have an average to high TE rating, are presented in Appendix F.

ANALYSIS OF SELECTED BACKGROUND DATA

The final major area addressed in each OSR is an indepth analysis of selected background data. Data addressed in the following sections indicate responses by the Aerospace Physiological officer respondents to the various questions contained in the USAFOMS II. Of special interest to training personnel and Air Staff are responses to several background questions and specific concerns proffered by USAFSAM and other field commanders who requested opinions from the surveyed Aerospace Physiologist officers regarding:

- (1) the opinion of the 2-week Instructor Training Workshop provided by the tech school;
- (2) the need for the 5-week Aerospace Physiological course to be more operationally oriented;
- (3) would attendance at some kind of specialized flight training course assist Aerospace Physiologist officers in performing their jobs better;

TABLE 24

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

| <u>CTS ELEMENTS</u> | | <u>TNG</u> | | <u>1ST</u> | <u>1ST</u> |
|---------------------|---|------------|--------------|--------------|--------------|
| | | <u>EMP</u> | <u>(PMP)</u> | <u>JOB</u> | <u>ASMT</u> |
| | | | | <u>(PMP)</u> | <u>(PMP)</u> |
| 0007 | 1e. Basic Flight Ground School (Nonrated Students Only) | B | | | |
| J636 | Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses | 4.45 | 49 | 44 | |
| J635 | Instruct Tanker, Transport, and Bomber (TTB) courses | 4.18 | 46 | 50 | |
| J633 | Instruct Low and Slow (L&S) Weapons Systems Refresher courses | 3.50 | 31 | 33 | |
| 0010 | 2b. Selected Gas Laws | B | | | |
| E455 | Conduct classroom instruction on decompression sickness (DCS) | 7.55 | 79 | 72 | |
| E461 | Conduct classroom instruction on hypoxia and hyperventilation | 7.55 | 85 | 78 | |
| E462 | Conduct classroom instruction on mechanical effects of pressure changes | 7.45 | 77 | 72 | |
| 0023 | 2c. Acceleration Physiology | B | | | |
| E483 | Instruct and critique students on performing anti-G straining maneuvers | 7.32 | 59 | 44 | |
| E446 | Conduct classroom instruction on acceleration and anti-G clothing and equipment | 6.55 | 72 | 67 | |
| J636 | Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses | 4.45 | 49 | 44 | |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

| <u>CTS ELEMENTS</u> | <u>TNG</u> | | <u>1ST</u> | |
|--|------------|------------|-------------|--------------|
| | <u>EMP</u> | <u>JOB</u> | <u>ASMT</u> | <u>(PMP)</u> |
| K687 Instruct aircrews on countering of G-induced loss of consciousness (GLOC) | 3.18 | 21 | 11 | |
| K688 Instruct and critique students during centrifuge qualification runs | 2.09 | 5 | 0 | |
| K673 Debrief and critique student centrifuge qualification runs with individualized VCR tapes | 1.95 | 5 | 0 | |
| <hr/> | | | | |
| 0036 3g. Ejection Seat - Live Fire | 2c | | | |
| E443 Brief or demonstrate physiological aids used in flying, such as survival equipment and ejection seats | 5.55 | 36 | 28 | |
| E445 Brief or demonstrate use of ejection seat trainers | 4.64 | 13 | 11 | |
| I578 Brief or demonstrate in-flight egress procedures | 1.91 | 8 | 11 | |
| <hr/> | | | | |
| 0037 3h. Advance Life Support Systems | B | | | |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 6.32 | 62 | 61 | |
| B221 Participate in safety meetings | 2.86 | 54 | 56 | |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS

TNG
EMP

IST
JOB
(PMP)

IST
ASMT
(PMP)

| | | | | | |
|------|---|------|----|---|----|
| 0038 | 4. Human Factors | | | | |
| E460 | Conduct classroom instruction on human factors | 8.09 | 77 | | 72 |
| B215 | Organize and present Flying Safety Programs | 4.23 | 33 | | 33 |
| B221 | Participate in safety meetings | 2.86 | 54 | | 56 |
| B84 | Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns | 2.77 | 41 | | 39 |
| B124 | Consult with concerned organizations on physiological questions or problems | 2.23 | 41 | | 50 |
| 0057 | 6d. Chamber Reactors | | | | |
| | | | | B | |
| G510 | Advise inside observers of appropriate treatment measures for reactors | 7.18 | 69 | | 56 |
| E482 | Instruct and critique student procedures for treatment of hypoxia | 7.09 | 69 | | 61 |
| G522 | Monitor serious reactors until arrival of flight surgeon | 7.09 | 59 | | 56 |
| E481 | Instruct and critique student procedures for treatment of hyperventilation | 7.0 | 69 | | 61 |
| G512 | Assist in treatment of chamber reactors with evolved gas disorders | 6.59 | 59 | | 61 |
| G525 | Perform inside instructor functions in hypobaric chambers | 6.36 | 62 | | 56 |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

| <u>CTS ELEMENTS</u> | <u>TNG</u> | | <u>1ST</u> | |
|---|------------|------------|-------------|--------------|
| | <u>EMP</u> | <u>JOB</u> | <u>ASMT</u> | <u>(PMP)</u> |
| G513 Brief trainees prior to chamber flights to prevent unwarranted chamber reactions | 6.09 | 59 | 56 | |
| G526 Perform inside observer functions during hypobaric proficiency flights | 5.64 | 54 | 78 | |
| E451 Conduct classroom instruction on chamber flights | 5.27 | 64 | 56 | |
| E474 Conduct pre- or postflight briefings following chamber flights | 5.00 | 28 | 22 | |
| G523 Operate diagnostic devices in hypobaric chambers | 3.68 | 8 | 0 | |
| <hr/> | | | | |
| 0058 6e. Chamber Operations | 2c | | | |
| G525 Perform inside instructor functions in hypobaric chambers | 6.36 | 62 | 56 | |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 5.77 | 69 | 67 | |
| G526 Perform inside observer functions during hypobaric proficiency flights | 5.64 | 54 | 78 | |
| G521 Monitor inside observer position and students during rapid decompression flights | 5.55 | 69 | 61 | |
| E451 Conduct classroom instruction on chamber flights | 5.27 | 64 | 56 | |
| G527 Perform lock operator functions on hypobaric chamber flights | 5.09 | 26 | 28 | |
| G515 Conduct hypobaric chamber team training | 4.50 | 44 | 50 | |
| G520 Monitor chamber inside and outside observer positions during proficiency flights | 4.50 | 44 | 39 | |
| E478 Evaluate functions of aerospace physiology equipment, such as proper operation | 4.45 | 26 | 22 | |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS

| | | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|------|---|------------|---------------------|----------------------|
| G524 | Perform chamber operator functions on hypobaric chamber flights | 4.45 | 10 | 17 |
| B157 | Direct posting of emergency procedures for chamber operations, such as loss of oxygen or freon into chambers | 2.23 | 28 | 22 |
| C312 | Direct special inspections of hypobaric chamber equipment | 2.05 | 10 | 11 |

0064 7c. Basic Exercise Physiology

B

| | | | | |
|------|--|------|----|----|
| E486 | Instruct students on differences between aerobic and anaerobic types of training exercises | 6.36 | 0 | 0 |
| E459 | Conduct classroom instruction on health and wellness | 6.14 | 72 | 72 |
| K686 | Instruct aircrews on basic exercise physiology, such as Warrior Fitness Training Programs | 2.68 | 8 | 6 |
| K675 | Diagnose and develop individual student diet and fitness programs | 2.36 | 10 | 6 |

0065 7d. G-Tolerance and Exercise

B

| | | | | |
|------|--|------|----|----|
| E446 | Conduct classroom instruction on acceleration and anti-G clothing and equipment | 6.55 | 72 | 67 |
| E486 | Instruct students on differences between aerobic and anaerobic types of training exercises | 6.36 | 0 | 0 |
| J636 | Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses | 4.45 | 49 | 44 |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

| <u>CTS ELEMENTS</u> | | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|---------------------|---|------------|---------------------|----------------------|
| K687 | Instruct aircrews on countering of G-induced loss of consciousness (GLOC) | 3.18 | 21 | 11 |
| K686 | Instruct aircrews on basic exercise physiology, such as Warrior Fitness Training Programs | 2.68 | 8 | 6 |
| K675 | Diagnose and develop individual student diet and fitness programs | 2.36 | 10 | 6 |
| <hr/> | | | | |
| 0066 | 7e. USAF Fitness Program | B | | |
| E472 | Conduct classroom instruction on self-imposed stresses | 7.41 | 74 | 72 |
| E459 | Conduct classroom instruction on health and wellness | 6.14 | 72 | 72 |
| <hr/> | | | | |
| 0073 | 8c. Rotary-Wing Orientation | 1a | | |
| E456 | Conduct classroom instruction on disorientation | 8.00 | 74 | 67 |
| J633 | Instruct Low and Slow (L&S) Weapons Systems Refresher courses | 3.50 | 31 | 33 |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

| <u>CTS ELEMENTS</u> | | <u>TNG</u> | | <u>1ST</u> | <u>1ST</u> |
|---------------------|--|------------|--------------|--------------|--------------|
| | | <u>EMP</u> | <u>(PMP)</u> | <u>JOB</u> | <u>ASMT</u> |
| | | | | <u>(PMP)</u> | <u>(PMP)</u> |
| 0076 | 9b. Laser Threat/Protection | B | | | |
| E467 | Conduct classroom instruction on principles and problems associated with vision, including night vision | 7.45 | 79 | 78 | |
| E442 | Brief aircrew students on safety precautions associated with flying and life support equipment | 6.32 | 62 | 61 | |
| 0077 | 9c. USAF Operational Briefs | B | | | |
| J636 | Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses | 4.45 | 49 | 44 | |
| J635 | Instruct Tanker, Transport, and Bomber (TTB) courses | 4.18 | 46 | 50 | |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

| <u>CTS ELEMENTS</u> | | 1ST | | | |
|---------------------|---|-------------------|--------------|---------------|--|
| | | TNG <u>EMP</u> | JOB (PMP) | ASMT (PMP) | |
| 0078 | 10. Principles of Instructions | | | | |
| D425 | Prepare lesson plans | 6.59 | 72 | 72 | |
| D440 | Write test questions, such as for block tests | 4.64 | 36 | 39 | |
| D424 | Practice classroom presentations | 4.23 | 67 | 67 | |
| D350 | Approve or disapprove lesson plans | 3.41 | 38 | 33 | |
| D411 | Evaluate instructor's classroom presentations | 3.00 | 33 | 39 | |
| D345 | Administer tests | 2.95 | 41 | 50 | |
| D410 | Evaluate course outlines, lesson plans, or presentation methods | 2.95 | 41 | 44 | |
| D347 | Analyze test results | 2.91 | 51 | 50 | |
| D379 | Demonstrate methods of locating technical information | 2.86 | 21 | 22 | |
| D420 | Oversee student critiques | 2.86 | 44 | 44 | |
| D387 | Develop phase, block, or end of course tests | 2.82 | 31 | 39 | |
| D419 | Observe and critique classroom instructions | 2.73 | 54 | 44 | |
| D427 | Procure training aids, equipment, or space | 2.64 | 41 | 44 | |
| D385 | Develop course curricula or plans of instruction (POIs) | 2.55 | 23 | 28 | |
| B235 | Prepare charts, graphs, or slides for briefings | 2.50 | 72 | 72 | |
| B259 | Review instructor evaluations | 2.36 | 36 | 33 | |

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA
CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS

| | TNG | IST | IST |
|---|------------|--------------|--------------|
| | <u>EMP</u> | JOB | ASMT |
| | | <u>(PMP)</u> | <u>(PMP)</u> |
| D432 Review and update test materials | 2.14 | 23 | 39 |
| D433 Safeguard test materials | 1.95 | 15 | 28 |
| D364 Conduct instructor in-house training | 1.73 | 21 | 22 |
| D348 Approve or disapprove changes to course summary documents and course objective documents | 1.68 | 31 | 33 |
| D418 Inspect training aids for operation or suitability | 1.68 | 15 | 11 |
| D413 Evaluate OJT instructors | .91 | 8 | 11 |
| D389 Develop specialty training standards (STSs) or course training standards (CTSs) | .64 | 3 | 6 |

(4) in what period of time after the Aerospace Physiological course did Aerospace Physiologist officers believe they have the confidence level to teach aircrew members; and,

(5) to what extent did Aerospace Physiologist officers use computers in their daily duties.

Other areas that USAFOMS normally reviews in all occupational surveys for officer, enlisted, and civilian personnel are career progression, utilization or career field plans, as well as sense of satisfaction from jobs, sense of accomplishment from work, and utilization of talents and training.

It is not unexpected then, that a myriad of computer data products, responses from field validation interviews, and review of write-in comments were analyzed and considered by the analyst in responding to these questions. Table 25 presents relative responses to JI Selected Background Data.

Responses to Utilization Field Special Interest Concerns

Over half (53 percent) of the Aerospace Physiologist officers believe that the 2-week Instructor Training Workshop does not prepare them for classroom instructor duties (47 percent indicate it does). Indices by DAFSC, however, indicate that the three 2295A officers and 5 of the 10 1495A officers DO believe that the course prepares them for such duties (100 and 50 percent, respectively). Considering the fact that these DAFSC members are pilots and navigators, who have some amount of familiarity with and expertise in flying and aeronautical related terminology (which the 916X officers do not) these data are not surprising.

Over three-quarters (86 percent) of the survey respondents believe that the 5-week course should be more operationally oriented. This is reinforced by the individual DAFSC indices of 2295A, 1495A, and 916X personnel (100, 90, and 85 percent, respectively).

Almost 100 percent total agreement is noted by the survey respondents in their belief that attendance at some kind of a specialized flight training course would help aerospace physiologists accomplish their jobs better (97 percent). Indices by the rated DAFSC personnel are also at a high range (1495A - 90 percent and 2295A - 100 percent). Ninety-eight percent of the nonrated officers (916X) definitely agree that this type of training would be especially helpful to them and, in turn, to the students they are teaching.

Responses to amount of time Aerospace Physiologist officers believe they feel confident to instruct personnel in aerospace physiology and aviation human factors show interesting parallels among the rated and nonrated officers. The rated officers believe that within 1 to 3 months they are confident (100 percent each); whereas, only 38 percent of the 916X members have this belief. Overall, 51 percent of the 916X officers believe that it takes, at the very least, 4 to 12 months to

TABLE 25

AEROSPACE PHYSIOLOGIST OFFICERS
RESPONSES TO JOB INVENTORY
(SELECTED BACKGROUND DATA)

| | DAFSC ALL (N=78) | DAFSC 916X (N=65) | DAFSC 1495A (N=10) | DAFSC 2295A (N=3) |
|--|------------------------|-------------------------|--------------------------|-------------------------|
| <u>DOES 2-WEEK INSTRUCTOR TRAINING WORKSHOP PREPARE YOU FOR INSTRUCTOR DUTIES?</u> | | | | |
| YES | 47% | 45% | 50% | 100% |
| NO | 53% | 55% | 50% | - |
| <u>SHOULD THE 5-WEEK AP CURRICULA BE MORE OPERATIONALLY ORIENTED?</u> | | | | |
| YES | 86% | 85% | 90% | 100% |
| NO | 14% | 15% | 10% | - |
| <u>COULD AP ACCOMPLISH JOBS BETTER IF ATTENDED SPECIALIZED FLIGHT TRAINING COURSE?</u> | | | | |
| YES | 97% | 98% | 90% | 100% |
| NO | 3% | 2% | 10% | - |

TABLE 25 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
RESPONSES TO JOB INVENTORY
(SELECTED BACKGROUND DATA)

| | | | |
|--------|--------|--------|-------|
| DAFSC | DAFSC | DAFSC | DAFSC |
| ALL | 916X | 1495A | 2295A |
| (N=78) | (N=65) | (N=10) | (N=3) |

WHEN DID YOU FEEL CONFIDENT TO TEACH AIRCREW MEMBERS AFTER
THE AP COURSE?

| | | | | |
|------------------------------|-----|-----|------|------|
| 1-3 MOS | 49% | 38% | 100% | 100% |
| 4-6 MOS | 24% | 29% | - | - |
| 7-12 MOS | 18% | 22% | - | - |
| STILL NOT CONFIDENT TO TEACH | 1% | 2% | - | - |

HOW OFTEN DO YOU FLY IN MILITARY AIRCRAFT DURING 6-MONTH
PERIOD IN PRESENT AP POSITION?

| | | | | |
|-----------------|-----|-----|-----|-----|
| NOT AT ALL | 56% | 60% | 40% | 33% |
| 1-3 TIMES | 22% | 26% | - | - |
| 4-6 TIMES | 9% | 9% | - | 33% |
| 7 OR MORE TIMES | 13% | 5% | 60% | 33% |

COMPUTER USE AND TRAINING

DO YOU OPERATE COMPUTERS IN DAILY DUTIES?

| | | | | |
|-----|-----|-----|-----|-----|
| YES | 72% | 75% | 60% | 33% |
|-----|-----|-----|-----|-----|

TABLE 25 (CONTINUED)

**AEROSPACE PHYSIOLOGIST OFFICERS
RESPONSES TO JOB INVENTORY
(SELECTED BACKGROUND DATA)**

| | DAFSC ALL (N=78) | DAFSC 916X (N=65) | DAFSC 1495A (N=10) | DAFSC 2295A (N=3) |
|--|------------------------|-------------------------|--------------------------|-------------------------|
| <u>TYPE OF TRAINING RECEIVED</u> | | | | |
| DO NOT USE COMPUTER | 14% | 9% | 40% | 33% |
| NO FORMAL TRAINING | 40% | 42% | 40% | - |
| FORMAL RES COURSE TRAINING-(AETC TRAINER) | - | - | - | - |
| FORMAL IN-HOUSE TRAINING | 18% | 22% | - | - |
| FORMAL TRAINING AT VOCATIONAL TECH-TYPE SCHOOL | 1% | 2% | - | - |
| INFORMAL SELF-PACED TRAINING | 19% | 17% | 20% | 67% |
| <u>IF DO NOT USE COMPUTER IN DAILY DUTIES</u> | | | | |
| NO COMPUTER AVAILABLE | 4% | 5% | - | - |
| CHOOSE NOT TO USE | 5% | 3% | 10% | 33% |
| NOT ENOUGH TRAINING | 1% | 2% | - | - |
| ADMIN WORK DONE BY OTHERS | 18% | 15% | 30% | 33% |
| NO RESPONSE | 72% | 75% | 60% | 33% |

perceive a confidence level in teaching. Eleven percent of the 916X respondents either did not respond to this background question or do not still feel confident to teach (2 percent).

During a 6-month period, again the rated officers spend more time flying in a military aircraft than do the 916X personnel. Sixty-percent of the 916X Aerospace Physiological officers do not fly at all, and with those that do, indices are not high; 1 to 3 times (26 percent), 4 to 6 times (9 percent), and 7 or more times (5 percent).

Adequacy of Computer Training

Overall, the Aerospace Physiological officers use computers minimally (from 25 percent to 67 percent) in their daily duties. The 916X officers report the highest computer usage (25 percent), followed by 1495A DAFSC personnel (40 percent).

Indices do, however, note that less than half of the officers (42 percent) have received no formal training in using computers and rely mostly on self-paced types of training. Eighteen percent of the members report having their administrative work accomplished by others.

These indices highlight the need for Air Force Training Staff to review computer training priorities, since a large percentage of officer personnel are NOT being adequately trained for this segment of their daily duties.

In regard to level of education of the Aerospace Physiologist officers, 46 percent of the members have a master's degree or master's degree plus. Twelve percent of the members hold a doctoral degree, and 5 percent indicate post doctoral level work. The major focus of their bachelor's degrees are Biology, Zoology, Physiology, Chemistry, and Physical Education. Master's degrees differ somewhat in their focus: Physiology, Exercise Physiology, Biology, Business, Management, Organizational Development, and Human Factors.

JOB SATISFACTION INDICATORS OVERVIEW

As addressed thoroughly within the various sections of the OSR, job satisfaction indices are included in every USAF JI Background section, with the resultant data being reported to an ongoing research project at AL/HRD, Brooks AFB TX. Job satisfaction is also an extremely important part of the indepth analyses of the survey data, because it presents the prevailing attitudes of the respondents for job satisfaction and training issues. The user should understand and note that an individual's job satisfaction may be easily influenced by many factors, such as the particular DAFSC, supervisors, the tasks performed, command of assignment, and paygrade.

The user should review the associated tables throughout the OSR on job satisfaction. To assess the above areas, job satisfaction and training data were extracted from the selected background characteristics, which include all Aerospace Physiologist survey respondents.

Overall, job satisfaction responses are generally in the high-positive range by the three targeted DAFSCs across all indicators queried: expressed job interest (91 percent - "Interesting"), perceived utilization of talents (62 percent - "Fairly Well To Very Well"), sense of accomplishment (91 percent - "Satisfied"), and perceived utilization of training (60 percent - "Fairly Well To Very Well").

Contrastable to indications of job satisfaction is perception of career progression and future utilization field plans. The Aerospace Physiologist officers, as a whole, again show some interesting parallels in these responses. The 916X officers indicate high positive indices (78 percent) in career progression opportunities and plan to remain in the utilization field (83 percent), with only 11 percent indicating an interest in career broadening or crosstraining. In contrast, the rated officers are much lower (2295A - 67 percent positive) and 1495A (50 percent - not positive). In regard to utilization field plans, 67 percent of the 2295A officers indicate they will remain in the field, however, 33 percent report they plan to crosstrain for career broadening. Thirty percent of the 1495A officers indicate they plan to remain within the field, 40 percent plan to leave, and 10 percent of the members appear to be undecided about future plans.

WRITE-IN COMMENTS

Individuals are encouraged to add additional information about their jobs or training on the last page of each USAF JI survey booklet. This includes adding additional duties that are performed, additional degrees that are held by the officers, as well as suggestions for training, opinions regarding their AFSCs, and any other pertinent data (to the respondents) that were not included in the JI.

If and whenever there are problems or major concerns in the AFSC being surveyed, the respondents are usually quite free with write-in comments, indicating real or perceived concerns. There were 40 comment sheets filled out and returned from the 78 Aerospace Physiologist officers. Overall, the comments have a positive and informative tone.

A few of the officers discussed such commonly received responses from the field, such as "the length of the inventory - too long"; the type of scale used for time spent in present job category is - "too complex and too broad of a range"; "inventory did not cover a sufficient number of questions on technical knowledge required to accomplish jobs"; and "enforced suspense (24 hours) to answer both the TE and JI booklets was ludicrous."

Other comments indicated additional schools such as Lieutenant Professional Development that respondents have attended; one person indicated that "the Aerospace

Physiologist School training course was one of the best training courses the individual ever attended." A rated member noted "Aerospace Physiology is a dead end field for any pilot since all promotions go to BSCS above the grade of major."

Eight additional tasks* were added by the respondents, such as "Attend TQM courses," "Perform as member of Quality Council of Medical Center," "Plan, execute, and evaluate BEET team," and "Develop plans and programs for Laboratory."

Eight additional undergraduate and advanced degrees were added by the respondents which had not been included in the original listings, such as Plant Physiologist, Forensic Science, Anatomy/Neurophysiological, Physical Therapy, Medical Microbiology, and Molecular Biology.

* Many of the added tasks are often too specific for addressing the duties of the majority of the AFSC respondents; however, USAFOMS maintains copies of these additional tasks, and they are routinely reviewed by the job inventory developers when the utilization field is again surveyed.

NOTE: Users should be aware that many pages held three or more responses to the various background questions. The Analyst has taken "liberty" when reviewing the write-in comments to consolidate and synthesize these comments for clarity, continuity, and cohesiveness.

IMPLICATIONS

This occupational survey was the result of a request in August 1990 by USAF School of Aerospace Medicine, Brooks AFB TX to provide relative data to assist in future training and manpower decisions, as well as evaluate the cohesiveness of the three DAFSCs included within the Aerospace Physiologist utilization field. Interest was also proffered regarding the responses to the four questions added to the background area regarding Aerospace training. Responses to these items are covered thoroughly in the ANALYSIS OF SELECTED BACKGROUND DATA section. The 78 respondents who provide the basis of data presented in this survey were AFSC 916X, 1495A, and 2295A Aerospace Physiologist officers.

In the final analysis of the tasks performed by the members of the targeted AFSCs, corresponding paygrade groups, and selected background information, the data indicate that Aerospace Physiologist officer personnel perform many diverse functions. The AFSCs appear to be extremely compatible, as far as their performance of the generalized administrative and supervisory officer tasks in Management and Supervisory and Planning and Command functions. Their major job focus, however, remains in specialized training of aerospace physiology and aviation human factors and the associated related tasks. The specificity of the daily duties and tasks performed by the officers in the three AFSCs targeted in this study, other than those duties noted above, is covered thoroughly throughout the various analyses by Job Structure, DAFSC, Operating Command, and paygrade groups. Tasks performed by the survey respondents follow

closely and validate the positions and requirements for AFSC Aerospace Physiologist officers as described in the current AFR 36-1 Specialty Descriptions for each of the targeted DAFSCs.

Air Staff, Training Managers, and other Aerospace Physiologist Staff should review thoroughly all OSR tables, figures, appendices, and extracts which can be used to their full advantage in formulating future training decisions. The overall data included in these analyses are indicative of the general attitudes of the personnel and accurately describe the duties and tasks performed by the 78 respondents included in the survey sample. A reiteration of some of the findings which should be considered for training implications are:

(1) The members included in the Job Structure analysis perform common administrative and supervisory officer tasks across the Management and Supervisory and Organizing, Planning, and Command functional areas, which by their commonality are included in the six identified jobs. The wide variations, as well as the exclusivity of the tasks included within each of the clusters and IJs, indicate much diversity within the jobs themselves. Although the members of the two IJs perform some similar tasks to the two major cluster groups, each perform tasks, sometimes in a more technical or research manner, which are distinctly different from the members included in the four jobs within the major cluster groups.

(2) The indepth analysis of the three targeted AFSC groups, the AFSC as a whole, along with corresponding paygrade groups and selected background characteristics, indicates that members perform many diverse functions within their Aerospace Physiologist utilization field. There are few discernible differences (with the exception of amount of time spent) in the duties and tasks performed by the three DAFSCs included within this utilization field. The largest majority of the officers focus their time and energies instructing personnel in aerospace physiology and aviation human factors, according to their specific duty assignments.

(3) AFSC group analysis indicates that a definitive agreement exists between the tasks performed and the AFR 36-1 Specialty Descriptions, which in turn ensures officer theoretical career progression within the Aerospace Physiological utilization field officers.

(4) Job descriptions are included for both the job structure and each of the DAFSC groups. Similarity and differences between paygrade groups, and within AFSCs and job structure groups, are also presented in figures, tables, and appendices included in the OSR. These descriptions provide the tasks, percent members performing each task, and the relative measure of how much time is spent on that task. Representative tasks performed by job structure groups, AFSC groups, paygrade groups, and TAFMS groups are presented in Appendices A through F.

(5) Job Satisfaction indicators are relatively high. Overall, the Aerospace Physiologist officers believe their jobs are "interesting" (91 percent), and they report having high "satisfaction" (91 percent) with sense of accomplishment gained from their work. They also perceive that their current jobs "utilize their talents" (62 percent), and "utilize their training" (60 percent). Interesting to note, however, in contrast to the positive job satisfaction indicators, the majority of the 916X survey respondents report medium to high indices (65 percent) in responses to career progression and interest in remaining in their present careers (83 percent); the 13 rated officers

are undecided about their future careers as Aerospace Physiologist officers and showed much lower indices in both utilization field plans and career progression.

The analysis of the 916X, 1495A, and 2295A Aerospace Physiologist officers as a whole, identified minimal differences between the rated and nonrated officers among the duties and tasks performed. The focus of the officers' responsibilities is driven by the specific duty to which each aerospace physiological officer is assigned, such as hypobaric or hyperbaric chambers, centrifuge training and operations, pressure suit and life support equipment, HAAMS, or RTDE&A. The Aerospace Physiologist course taught at the school of Aerospace Medicine provides the basic overview knowledge to perform the required duties as an aerospace physiologist. Follow-on instructions are provided at the bases of assignment for those specific functions which the officers are expected to perform, such as hyperbaric and hypobaric chambers, centrifuge operations and training, etc. The comprehensive data from this analysis can and should be used to identify areas which may be included in any revisions or changes made to training and classification documents, such as CTSs, POIs, and AFR 36-1 Specialty Descriptions and in all future course development.

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APPENDIX A

**AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A**

**REPRESENTATIVE TASKS HIGH TO AVERAGE TRAINING EMPHASIS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))**

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APPENDIX A

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>TNG</u> | <u>IST</u> | <u>JOB</u> | <u>ASMT</u> |
|--|------------|------------|--------------|--------------|
| | <u>EMP</u> | | <u>(PMP)</u> | <u>(PMP)</u> |
| E460 Conduct classroom instruction on human factors | 8.09 | 77 | 72 | |
| E456 Conduct classroom instruction on disorientation | 8.00 | 74 | 67 | |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 7.55 | 85 | 78 | |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 7.55 | 79 | 72 | |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 7.45 | 79 | 78 | |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 7.45 | 77 | 72 | |
| E472 Conduct classroom instruction on self-imposed stresses | 7.41 | 74 | 72 | |
| E483 Instruct and critique students on performing anti-G straining maneuvers | 7.32 | 59 | 44 | |
| E480 Instruct and critique student procedures for treatment of DCS | 7.32 | 64 | 56 | |
| E448 Conduct classroom instruction on aircrew attention management | 7.23 | 67 | 50 | |
| G510 Advise inside observers of appropriate treatment measures for reactors | 7.18 | 69 | 56 | |
| E482 Instruct and critique student procedures for treatment of hypoxia | 7.09 | 69 | 61 | |
| G522 Monitor serious reactors until arrival of flight surgeon | 7.09 | 59 | 56 | |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 7.00 | 69 | 61 | |
| E471 Conduct classroom instruction on respiration and circulation | 6.95 | 79 | 72 | |
| E452 Conduct classroom instruction on cockpit task management | 6.95 | 64 | 50 | |
| E457 Conduct classroom instruction on effects of elevated partial pressures | 6.86 | 54 | 44 | |
| E465 Conduct classroom instruction on physics of the atmosphere | 6.77 | 82 | 78 | |
| E464 Conduct classroom instruction on noise effect | 6.73 | 79 | 78 | |
| E475 Demonstrate or operate Barony chairs | 6.64 | 64 | 56 | |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>TNG</u> <u>EMP</u> | <u>1ST</u> <u>JOB</u> <u>(PMP)</u> | <u>1ST</u> <u>ASMT</u> <u>(PMP)</u> |
|---|--------------------------|--|---|
| D425 Prepare lesson plans | 6.59 | 72 | 72 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 6.59 | 59 | 61 |
| G514 Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors | 6.55 | 49 | 61 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 6.55 | 72 | 67 |
| G525 Perform inside instructor functions in hypobaric chambers | 6.36 | 62 | 56 |
| E486 Instruct students on differences between aerobic and anaerobic types of training exercises | 6.36 | 0 | 0 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 6.32 | 62 | 61 |
| E453 Conduct classroom instruction on compression physics, such as hyperbarics and other hyperbaric technology topics | 6.18 | 26 | 33 |
| E459 Conduct classroom instruction on health and wellness | 6.14 | 72 | 72 |
| G513 Brief trainees prior to chamber flights to prevent unwarranted chamber reactions | 6.09 | 59 | 56 |
| E476 Demonstrate or operate spatial disorientation equipment, such as advanced disorientation demonstrators (ASDDs) | 5.91 | 15 | 11 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 5.77 | 69 | 67 |
| G511 Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAC) flights | 5.64 | 46 | 50 |
| G526 Perform inside observer functions during hypobaric proficiency flights | 5.64 | 54 | 78 |
| E443 Brief or demonstrate physiological aids used in flying, such as survival equipment and ejection seats | 5.55 | 36 | 28 |
| G521 Monitor inside observer position and students during rapid decompression flights | 5.55 | 69 | 61 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 5.55 | 77 | 61 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|-------|------------|---------------------|----------------------|
| | | | |
| E447 | 5.45 | 10 | 6 |
| E451 | 5.27 | 64 | 56 |
| G527 | 5.09 | 26 | 28 |
| E474 | 5.00 | 28 | 22 |
| E454 | 4.91 | 8 | 6 |
| A69 | 4.86 | 8 | 11 |
| A68 | 4.68 | 10 | 11 |
| E445 | 4.64 | 13 | 11 |
| D440 | 4.64 | 36 | 39 |
| E450 | 4.59 | 13 | 6 |
| G515 | 4.50 | 44 | 50 |
| G520 | 4.50 | 44 | 39 |
| E466 | 4.45 | 8 | 6 |
| E478 | 4.45 | 26 | 22 |
| G524 | 4.45 | 10 | 17 |
| J63 | 4.45 | 49 | 44 |

Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge
 Conduct classroom instruction on chamber flights
 Perform lock operator functions on hypobaric chamber flights
 Conduct pre- or postflight briefings following chamber flights
 Conduct classroom instruction on crash survival equipment and emergency escapes from aircraft
 Participate in Aircraft Physiological Incident Investigations
 Participate in Aircraft Mishap Investigations
 Brief or demonstrate use of ejection seat trainers
 Write test questions, such as for block tests
 Conduct classroom instruction on centrifuge profiles
 Conduct hypobaric chamber team training
 Monitor chamber inside and outside observer positions during proficiency flights
 Conduct classroom instruction on pressure suit principles
 Evaluate functions of aerospace physiology equipment, such as for proper operation
 Perform chamber operator functions on hypobaric chamber flights
 Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | TNG | | 1ST | |
|---|------------|--------------|-----|----------------------|
| | <u>EMP</u> | <u>(PMP)</u> | JOB | ASMT <u>(PMP)</u> |
| <u>VERY HIGH TE - MEAN PLUS 2 SD (4.44+)</u> | | | | |
| H566 Respond to chamber-related physiological adverse reactions, such as hypoglycemia episodes or oxygen toxicity reactions | 4.36 | 18 | 28 | 28 |
| H562 Perform inside attendant functions on hyperbaric chamber dives | 4.32 | 28 | 28 | 28 |
| B215 Organize and present Flying Safety Programs | 4.23 | 33 | 33 | 33 |
| D424 Practice classroom presentations | 4.23 | 67 | 67 | 67 |
| J635 Instruct Tanker, Transport, and Bomber (TTB) courses | 4.18 | 46 | 46 | 50 |
| E458 Conduct classroom instruction on experimental aspects of hyperbaric oxygen | 4.14 | 26 | 26 | 22 |
| H565 Perform team chief functions during chamber training and proficiency dives | 4.05 | 26 | 26 | 28 |
| H558 Perform chamber emergency dive team member functions | 3.91 | 31 | 31 | 28 |
| G517 Critique chamber flight lecturers | 3.86 | 51 | 51 | 44 |
| D422 Participate in classroom proficiency training | 3.77 | 38 | 38 | 33 |
| H563 Perform inside patient attendant functions during hyperbaric chamber dives | 3.73 | 8 | 8 | 6 |
| G523 Operate diagnostic devices in hypobaric chambers | 3.68 | 8 | 8 | 0 |
| H528 Brief individuals on chamber operations and policies | 3.68 | 33 | 33 | 28 |
| G518 Critique chamber proficiency training flights with team members | 3.64 | 33 | 33 | 28 |
| J633 Instruct Low and Slow (L&S) Weapons Systems Refresher courses | 3.50 | 31 | 31 | 33 |
| B112 Certify AF Forms 1274 (Physiological Training) | 3.45 | 67 | 67 | 56 |
| B114 Certify AF Forms 712 (Instructor's Flight/Dive Record) | 3.45 | 28 | 28 | 33 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|--|------------|---------------------|----------------------|
| | | | |
| E473 Conduct classroom instruction on USAF Hyperbaric Therapy Programs - Future and Past | 3.41 | 8 | 6 |
| D378 Critique student test results with students | 3.41 | 49 | 56 |
| D350 Approve or disapprove lesson plans | 3.41 | 38 | 33 |
| B113 Certify AF Forms 702 (Individual Physiological Training Record) | 3.36 | 69 | 61 |
| H559 Perform chamber operator functions on hyperbaric chamber dives | 3.32 | 23 | 28 |
| B81 Act as officer-in-charge (OIC) during equipment evaluation dives | 3.18 | 28 | 44 |
| K687 Instruct aircrews on countering of G-induced loss of consciousness (GLOC) | 3.18 | 21 | 11 |
| H564 Perform lock operator functions on hyperbaric chamber dives | 3.14 | 15 | 11 |
| D380 Design student training literature | 3.14 | 46 | 56 |
| K689 Maintain proficiency and currency in cardiopulmonary resuscitation (CPR) techniques | 3.09 | 18 | 11 |
| H540 Direct emergency hyperbaric chamber proficiency training | 3.05 | 26 | 33 |
| G519 Escort chamber reactors to hospital | 3.00 | 33 | 28 |
| D411 Evaluate instructor's classroom presentations | 3.00 | 33 | 39 |
| E470 Conduct classroom instruction on principles of flight training | 3.00 | 8 | 0 |
| D345 Administer tests | 2.95 | 41 | 50 |
| I591 Instruct principles and procedures of crash survival | 2.95 | 0 | 0 |
| I596 Perform OIC functions on PFT teams | 2.95 | 13 | 11 |
| D410 Evaluate course outlines, lesson plans, or presentation methods | 2.95 | 41 | 44 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

1ST 1ST
TNG JOB ASMT
EMP (PMP) (PMP)

TASKS

HIGH TE RATINGS - MEAN PLUS 1SD (2.93+)

| | | | | |
|------|---|------|----|----|
| E469 | Conduct classroom instruction on principles of flight | 2.91 | 8 | 0 |
| D347 | Analyze test results | 2.91 | 51 | 50 |
| E468 | Conduct classroom instruction on principles of aircraft navigation and weather | 2.91 | 13 | 0 |
| B221 | Participate in safety meetings | 2.86 | 54 | 56 |
| J629 | Instruct Base Instrument Refresher Courses (IRCs) | 2.86 | 21 | 17 |
| D379 | Demonstrate methods of locating technical information | 2.86 | 21 | 22 |
| H560 | Perform crew chief functions on hyperbaric chamber dives | 2.86 | 15 | 17 |
| D420 | Oversee student critiques | 2.86 | 44 | 44 |
| B275 | Write EPRs | 2.82 | 28 | 11 |
| D387 | Develop phase, block, or end of course tests | 2.82 | 31 | 39 |
| B146 | Direct aerospace physiology equipment maintenance or utilization, such as for hyperbaric chamber facilities | 2.82 | 23 | 33 |
| E485 | Instruct or demonstrate water survival procedures in which pressure suits are not worn | 2.77 | 0 | 0 |
| L708 | Brief aircrew and parachutists on high altitude hazards | 2.77 | 3 | 6 |
| B84 | Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns | 2.77 | 41 | 39 |
| J631 | Instruct High Altitude Life Support System Survival Orientation courses | 2.73 | 3 | 6 |
| D419 | Observe and critique classroom instructions | 2.73 | 54 | 44 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | TNG <u>EMP</u> | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|--|-------------------|---------------------|----------------------|
| | | | |
| B169 Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record) | 2.68 | 59 | 61 |
| D426 Prepare training schedules | 2.68 | 31 | 39 |
| K686 Instruct aircrews on basic exercise physiology, such as Warrior Fitness Training Programs | 2.68 | 8 | 6 |
| E484 Instruct or demonstrate water survival procedures in which pressure suit assemblies are worn | 2.68 | 3 | 6 |
| B116 Certify starting or stopping of hazardous duty incentive pay for team members | 2.68 | 28 | 11 |
| D427 Procure training aids, equipment, or space | 2.64 | 41 | 44 |
| F488 Assist in operation of ASDDs | 2.64 | 0 | 0 |
| C303 Develop unit or organizational quality control (QC) programs | 2.59 | 21 | 22 |
| B194 Implement total quality management (TQM) programs | 2.59 | 31 | 33 |
| I594 Oversee descent and landing techniques training | 2.59 | 13 | 11 |
| I584 Conduct PLF training | 2.59 | 3 | 0 |
| D385 Develop course curricula or plans of instruction (POIs) | 2.55 | 23 | 28 |
| B272 Verify proper storage of high pressure gas storage cylinders | 2.55 | 23 | 28 |
| A37 Determine budget or financial priorities or requirements | 2.50 | 23 | 11 |
| B235 Prepare charts, graphs, or slides for briefings | 2.50 | 72 | 72 |
| A70 Participate in mishap investigations, other than aircraft accidents or incidents | 2.50 | 3 | 6 |
| B89 Approve and upchannel AF Forms 700 (Physiological Training Monthly Report) | 2.45 | 26 | 17 |
| J630 Instruct basic fighter transition (BFT) courses | 2.45 | 5 | 0 |
| D405 Endorse AF Forms such as, AF Forms 1274 (Physiological Training) | 2.41 | 54 | 56 |
| K666 Assume supervision of centrifuge reactors prior to flight surgeon or emergency medical team support | 2.41 | 5 | 0 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|---|------------|---------------------|----------------------|
| | | | |
| K675 Diagnose and develop individual student diet and fitness programs | 2.36 | 10 | 6 |
| B259 Review instructor evaluations | 2.36 | 36 | 33 |
| K669 Conduct remedial G-situational awareness (SA) training for centrifuge qualification students | 2.32 | 5 | 0 |
| B281 Write OPRs | 2.32 | 18 | 6 |
| C311 Direct special inspections of hyperbaric chamber equipment and assemblies | 2.32 | 10 | 17 |
| B168 Evaluate AF Forms 700 | 2.32 | 21 | 28 |
| G516 Coordinate crew member integration checks with appropriate personnel | 2.32 | 18 | 6 |
| I580 Brief or demonstrate PLFs during parasail tow-downs | 2.32 | 3 | 6 |
| B119 Conduct and record personnel counseling sessions | 2.27 | 38 | 28 |
| A47 Endorse and upchannel enlisted performance reports (EPRs) | 2.27 | 31 | 17 |
| K674 Debrief centrifuge students on G-load and G-suit pressures with annotated strip-charts | 2.27 | 5 | 0 |
| B157 Direct posting of emergency procedures for chamber operations, such as loss of oxygen or freon into chambers | 2.23 | 28 | 22 |
| D369 Coordinate formal classroom training with appropriate personnel | 2.23 | 62 | 61 |
| E479 Indoctrinate aircrews on associated procedures of chemical defense equipment | 2.23 | 3 | 0 |
| K667 Brief profiles and standardized procedures used during centrifuge qualification runs | 2.23 | 3 | 0 |
| B124 Consult with concerned organizations on physiological questions or problems | 2.23 | 41 | 50 |
| B141 Determine justifications for manning or manpower changes | 2.18 | 10 | 0 |
| I598 Verify weather conditions prior to departure to PFT area | 2.18 | 15 | 17 |
| E477 Document classroom instruction on aircrew member's self-first aid training | 2.18 | 3 | 0 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | | TNG | IST | | IST |
|-------|--|------|-----|-------|---------------|
| | | EMP | JOB | (PMP) | ASMT (PMP) |
| J634 | Instruct Pilot Protection Assembly (PPA) training courses, such as original or refresher U-2 Courses | 2.18 | 8 | 6 | |
| B117 | Complete accident or incident report forms | 2.18 | 15 | 17 | |
| A20 | Approve or disapprove unit regulations, OIs, or SOPs | 2.18 | 28 | 22 | |
| J607 | Coordinate flight surgeon participation in MEDEVAC flights with appropriate personnel | 2.18 | 10 | 11 | |
| I579 | Brief or demonstrate parachute landing falls (PLFs) during parasail releases | 2.18 | 3 | 6 | |
| D432 | Review and update test materials | 2.14 | 23 | 39 | |
| K676 | Direct cessation of centrifuge runs for student techniques, safety concerns, or emergencies | 2.14 | 5 | 0 | |
| H561 | Perform designated consultant functions for military and civilian hyperbaric chamber procedures and concerns | 2.14 | 8 | 11 | |
| K693 | Perform centrifuge aerospace physiologist (CAP) functions during centrifuge profiles | 2.14 | 5 | 0 | |
| B191 | Implement Safety Programs | 2.14 | 18 | 22 | |
| B262 | Schedule annual student training | 2.09 | 26 | 22 | |
| K688 | Instruct and critique students during centrifuge qualification runs | 2.09 | 5 | 0 | |
| B260 | Review training evaluations | 2.09 | 23 | 22 | |
| H543 | Direct periodic air samplings in compressed air accumulators | 2.09 | 10 | 11 | |
| E463 | Conduct classroom instruction on mobility exercises and deployment | 2.09 | 8 | 6 | |
| B270 | Verify medical status and flight physical currency of students scheduled for chamber flights | 2.05 | 33 | 33 | |
| D346 | Advise staff or unit personnel on training matters | 2.05 | 44 | 50 | |
| D381 | Determine if training for assigned courses follows established policies and directives | 2.05 | 23 | 28 | |
| I582 | Conduct classroom instruction on principles of aircraft instruments | 2.05 | 3 | 0 | |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>TNG</u> | <u>1ST</u> <u>JOB</u> | <u>1ST</u> <u>ASMT</u> <u>(PMP)</u> |
|---|------------|--------------------------|---|
| B159 Direct proficiency training in use of approved USAF Hyperbaric Medicine Program treatment table (dive profile) | 2.05 | 33 | 39 |
| C312 Direct special inspections of hypobaric chamber equipment and assemblies | 2.05 | 10 | 11 |
| C300 Critique and oversee daily inspections of aerospace physiology equipment, such as night vision trainers | 2.05 | 8 | 6 |
| D428 Provide input for training manual updates | 2.05 | 18 | 33 |
| B239 Prepare recommendations for changes to unit instructor guides | 2.00 | 33 | 33 |
| B227 Plan safety programs | 2.00 | 13 | 17 |
| H530 Chart step-by-step action and time lines for hyperbaric dives | 2.00 | 8 | 0 |
| A26 Conduct routine or on-spot checks of units, such as hyperbaric chambers | 2.00 | 8 | 11 |
| K665 Assist physician with crash cart equipment during medical emergencies | 1.95 | 5 | 0 |
| K673 Debrief and critique student centrifuge qualification runs with individualized VCR tapes | 1.95 | 5 | 0 |
| B277 Write letters of counseling, appreciation, or reprimand | 1.95 | 38 | 39 |
| D402 Direct physiological training programs, such as for hypobaric technology | 1.95 | 3 | 0 |
| D433 Safeguard test materials | 1.95 | 15 | 28 |
| D363 Conduct inservice training sessions | 1.95 | 31 | 44 |
| I578 Brief or demonstrate in-flight egress procedures | 1.91 | 8 | 11 |
| J628 Instruct aircrew training for physiological support division (PSD) staff | 1.91 | 3 | 6 |
| C301 Critique corrective actions for resolution of discrepancies identified in inspections or evaluations | 1.91 | 15 | 6 |
| B145 Develop unit self-inspection checklists | 1.91 | 21 | 11 |
| B271 Verify posting of emergency procedures signs | 1.91 | 28 | 33 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|-------|------|---------------------|----------------------|
| | EMP | | |
| B137 | 1.86 | 38 | 39 |
| H529 | 1.86 | 10 | 6 |
| C327 | 1.86 | 5 | 6 |
| I590 | 1.82 | 5 | 6 |
| K668 | 1.82 | 5 | 0 |
| B155 | 1.82 | 18 | 22 |
| L720 | 1.77 | 3 | 6 |
| J653 | 1.77 | 5 | 6 |
| B233 | 1.77 | 21 | 11 |
| C313 | 1.77 | 18 | 22 |
| H551 | 1.77 | 13 | 11 |
| B153 | 1.77 | 21 | 22 |
| C307 | 1.77 | 3 | 0 |
| I577 | 1.77 | 3 | 0 |
| D439 | 1.77 | 3 | 6 |
| K671 | 1.77 | 8 | 0 |
| H570 | 1.73 | 8 | 6 |
| D364 | 1.73 | 21 | 22 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|--|------------|---------------------|----------------------|
| | | | |
| A36 Determine annual student training schedules | 1.73 | 28 | 28 |
| D365 Conduct periodic checks of qualified team members' proficiency | 1.73 | 41 | 44 |
| I597 Perform various related crew positions on PFT teams, such as canopy assistant or release operator | 1.73 | 13 | 17 |
| I595 Oversee fitting of parasail harnesses | 1.73 | 3 | 0 |
| D409 Evaluate and counsel students or trainees on training progress or academic problems | 1.73 | 18 | 17 |
| I583 Conduct classroom instruction on swing landings | 1.73 | 0 | 0 |
| F503 Oversee removal or replacement of oxygen mask components and associated assemblies | 1.73 | 0 | 0 |
| A38 Determine requirements for personnel, workspace, equipment, or supplies | 1.68 | 26 | 17 |
| A6 Approve or disapprove budget and financial expenditures | 1.68 | 15 | 6 |
| D418 Inspect training aids for operation or suitability | 1.68 | 15 | 11 |
| B242 Proofread correspondence, reports, or forms | 1.68 | 46 | 39 |
| B232 Prepare AF Forms 931 (Airman Performance Feedback Worksheet) | 1.68 | 3 | 6 |
| D348 Approve or disapprove changes to course summary documents and course objective documents | 1.68 | 31 | 33 |
| C293 Conduct safety inspections, briefings, or debriefings | 1.68 | 18 | 11 |
| L705 Advise aircraft commander on disposition of flight reactors | 1.68 | 3 | 6 |
| I619 Direct 911X0 and 122X0 personnel during high altitude training flights | 1.68 | 8 | 6 |
| A57 Evaluate personnel under operational conditions | 1.68 | 33 | 28 |
| A3 Analyze unit plans for effectiveness of unit operations | 1.68 | 21 | 11 |
| M751 Conduct Human Use protocols | 1.68 | 5 | 6 |
| H542 Direct loading or unloading of patients to or from hyperbaric chambers | 1.64 | 21 | 28 |
| C286 Analyze inspection reports or procedures | 1.64 | 15 | 11 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST | |
|---|------------|--------------|---------------|
| | | JOB (PMP) | ASMT (PMP) |
| K664 Annotate strip chart of G-load and G-pressure suit pressures during centrifuge qualification runs | 1.64 | 5 | 0 |
| C310 Direct special inspections of full pressure suits and associated assemblies | 1.64 | 3 | 0 |
| H552 Notify USAF Hyperbaric Center upon election of hyperbaric oxygen therapy treatment for acute-disorder patients | 1.64 | 13 | 17 |
| B166 Establish indoctrination programs for newly assigned personnel | 1.64 | 15 | 11 |
| J652 Perform high-altitude rapid decompression training | 1.64 | 13 | 11 |
| C314 Document results of inspections and evaluations | 1.64 | 13 | 11 |
| J604 Conduct classroom instructions for full pressure suit training | 1.64 | 5 | 6 |
| I585 Conduct post ejection sequence training using procedural trainers | 1.64 | 5 | 6 |
| A41 Develop and upchannel multiyear equipment acquisition plans | 1.64 | 13 | 6 |
| H567 Review and implement resolutions to problems elevated to MTF QA/RM Committee | 1.64 | 8 | 11 |
| B142 Develop and upchannel organizational policies, OIs, or SOPs | 1.59 | 36 | 28 |
| D352 Approve or disapprove recommendations for changes to unit instructor guides | 1.59 | 26 | 22 |
| B82 Administer unit or organizational equipment maintenance programs | 1.59 | 8 | 6 |
| D404 Direct self-study training | 1.59 | 3 | 6 |
| D353 Approve or disapprove student training literature | 1.59 | 26 | 28 |
| J603 Conduct classroom instruction for Instructor Qualification Training courses | 1.59 | 0 | 0 |
| A1 Advise higher headquarters, wing, base commander, or key personnel of serious incidents | 1.59 | 26 | 28 |
| D414 Evaluate proficiency of upgrade personnel prior to certification | 1.55 | 18 | 17 |
| B208 Manage computer resources | 1.55 | 28 | 28 |
| B258 Review completeness and accuracy of personnel folders | 1.55 | 18 | 17 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|-------|------------|---------------------|----------------------|
| | | | |
| A48 | 1.55 | 18 | 6 |
| D406 | 1.55 | 18 | 22 |
| B148 | 1.55 | 21 | 17 |
| D358 | 1.55 | 28 | 28 |
| B279 | 1.55 | 8 | 0 |
| J605 | 1.55 | 0 | 0 |
| D415 | 1.55 | 26 | 17 |
| D441 | 1.55 | 5 | 6 |
| D407 | 1.50 | 10 | 17 |
| B173 | 1.50 | 18 | 11 |
| D357 | 1.50 | 18 | 11 |
| L721 | 1.50 | 3 | 6 |
| D377 | 1.50 | 36 | 44 |
| H537 | 1.50 | 10 | 11 |
| J608 | 1.45 | 8 | 11 |
| D366 | 1.45 | 31 | 28 |
| I592 | 1.45 | 0 | 0 |
| C304 | 1.45 | 21 | 11 |
| B147 | 1.45 | 36 | 28 |

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

| TASKS | | 1ST | | TNG | 1ST | |
|-------|--|------|-----|-----|------|-------|
| | | EMP | JOB | | ASMT | (PMP) |
| H541 | Direct general maintenance on hyperbaric chamber assemblies, such as charging of compressed air flasks | 1.45 | 8 | | 17 | |
| D373 | Coordinate training matters with unit branches and staff | 1.45 | 21 | | 17 | |
| F497 | Oversee assembly and fitting of crewmembers' life support equipment | 1.45 | 0 | | 0 | |

AVERAGE TO ABOVE AVERAGE TE (MEAN TO 1SD)

APPENDIX A

AEROSPACE PHYSIOLOGICAL OFFICERS REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

FORMULA.... TRAINING EMPHASIS DATA: When a given task has an assigned TE rating greater than or equal to sum of the Mean value (1.42), plus 1 SD (1.51), these tasks merit strong consideration for inclusion in some form of structured training for first-assignment officers.

MEAN TO 1 S.D. (1.42 TO 1.51) = AVERAGE TO ABOVE AVERAGE TE
MEAN PLUS 1 S.D. (2.93) = HIGH TE
MEAN PLUS 2 S.D. (4.44) = VERY HIGH TE

APPENDIX B

**AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A**

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

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APPENDIX B1

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS
CLUSTER (ST15) (2 JOBS)

GROUP SIZE: 29

PERCENT OF SAMPLE: 37%

AVERAGE TIME IN CURRENT JOB: 16 MOS

SUPERVISE: 48%

AVERAGE TAFMS: 94 MOS

AVERAGE NUMBER OF TASKS
PERFORMED: 107

AVERAGE DAFSC DISTRIBUTION: 916X - 69%

RATED MEMBERS: 1495A - 28%, 2295A - 3%

AVERAGE GRADE DISTRIBUTION: O3 - 38%, O2 - 34%, O4 - 14%, O6 & O1 - 7%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS
PERFORMING:

| <u>TASKS</u> | <u>PERCENT MEMBERS PERFORMING</u> |
|---|---|
| E460 Conduct classroom instruction on human factors | 100 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 100 |
| E456 Conduct classroom instruction on disorientation | 100 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 100 |
| E464 Conduct classroom instruction on noise effect | 100 |
| E471 Conduct classroom instruction on respiration and circulation | 100 |
| E465 Conduct classroom instruction on physics of the atmosphere | 100 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 97 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 97 |
| E472 Conduct classroom instruction on self-imposed stresses | 93 |
| E448 Conduct classroom instruction on aircrew attention management | 90 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 90 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 90 |
| E452 Conduct classroom instruction on cockpit task management | 86 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 86 |
| B113 Certify AF Forms 702 (Individual Physiological Training Record) | 86 |
| E459 Conduct classroom instruction on health and wellness | 83 |

APPENDIX B2

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL PLANS AND
OPERATIONS MANAGERS CLUSTER (ST13) (2 JOBS)

GROUP SIZE: 32 PERCENT OF SAMPLE: 41%

AVERAGE TIME IN CURRENT JOB: 31 MOS SUPERVISE: 91%

AVERAGE TAFMS: 191 MOS AVERAGE NUMBER OF TASKS
PERFORMED: 251

AVERAGE DAFSC DISTRIBUTION: 916X - 87%

RATED DAFSCs: 1495A - 6%, 2295A - 6%

AVERAGE GRADE DISTRIBUTION: O4 - 34%, O6 - 22%, O5 & O3 - 19%, O2 - 6%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS
PERFORMING:

| <u>TASKS</u> | <u>PERCENT MEMBERS PERFORMING</u> |
|--|---|
| B110 Attend relevant scientific meetings | 94 |
| B140 Counsel personnel on career, personal, or military-related problems | 91 |
| A6 Approve or disapprove budget and financial expenditures | 91 |
| B92 Approve or disapprove AF Forms 988 (Leave Request/Authorization) | 88 |
| B277 Write letters of counseling, appreciation, or reprimand | 88 |
| A45 Elevate major discrepancies or unresolvable problems to designated higher-level personnel | 88 |
| B242 Proofread correspondence, reports, or forms | 84 |
| D346 Advise staff or unit personnel on training matters | 84 |
| A20 Approve or disapprove unit regulations, OIs, or SOPs | 84 |
| B200 Interpret policies, directives, or procedures for subordinates | 84 |
| B124 Consult with concerned organizations on physiological questions or problems | 84 |
| A19 Approve or disapprove unit plans, policies, programs, or administrative procedures | 84 |
| B84 Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns | 84 |
| A37 Determine budget or financial priorities or requirements | 84 |
| B217 Participate in ad hoc groups, special conferences, or planning committees | 84 |
| B104 Approve or disapprove work priorities | 84 |

APPENDIX B3

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL HYPERBARIC
OPERATIONS CHIEFS INDEPENDENT JOB (ST14)
GROUP SIZE: 4 PERCENT OF SAMPLE: 5%
AVERAGE TIME IN CURRENT JOB: 94 MOS SUPERVISE: 50%
AVERAGE TAFMS: 109 MOS AVERAGE NUMBER OF TASKS
PERFORMED: 118
AVERAGE DAFSC DISTRIBUTION: 916X - 100%
AVERAGE GRADE DISTRIBUTION: O5 - 25%, O3 - 75%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS
PERFORMING:

| <u>TASKS</u> | <u>PERCENT MEMBERS PERFORMING</u> |
|--|---|
| H559 Perform chamber operator functions on hyperbaric chamber dives | 100 |
| H560 Perform crew chief functions on hyperbaric chamber dives | 100 |
| H562 Perform inside attendant functions on hyperbaric chamber dives | 100 |
| H565 Perform team chief functions during chamber training and proficiency dives | 100 |
| H558 Perform chamber emergency dive team member functions | 100 |
| B211 Monitor scheduling of hyperbaric medicine team monthly crew dives | 100 |
| B269 Verify entries on hyperbaric reports, such as AF Forms 1354 (Hyperbaric Chamber Operation Record) | 100 |
| B81 Act as officer-in-charge (OIC) during equipment evaluation dives | 100 |
| D361 Conduct facility tours | 100 |
| H550 Monitor status of hyperbaric equipment and supply orders | 100 |
| H540 Direct emergency hyperbaric chamber proficiency training | 100 |
| B147 Direct compliance with operational directives | 100 |
| H544 Direct periodic inspections of hyperbaric chamber equipment and assemblies | 100 |
| H546 Direct removal or replacement of oxygen equipment items in hyperbaric chambers | 100 |
| B159 Direct proficiency training in use of approved USAF Hyperbaric Medicine Program treatment table (dive profile) | 100 |
| M783 Evaluate research protocols and test plans for compliance with Human Use Committee directives | 75 |

APPENDIX B4

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL RESEARCH,
DEVELOPMENT, TEST AND EVALUATION, AND
ACQUISITION OFFICERS INDEPENDENT JOB (ST17)

| | |
|------------------------------------|--|
| GROUP SIZE: 3 | PERCENT OF SAMPLE: 4% |
| AVERAGE TIME IN CURRENT JOB: 7 MOS | SUPERVISE: 0% |
| AVERAGE TAFMS: 72 MOS | AVERAGE NUMBER OF TASKS PERFORMED: 66 |

AVERAGE DAFSC DISTRIBUTION: 916X - 100%

AVERAGE GRADE DISTRIBUTION: O3 - 33%, O2 - 33%, O4 - 33%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS
PERFORMING:

| <u>TASKS</u> | <u>PERCENT MEMBERS PERFORMING</u> |
|---|---|
| M751 Conduct Human Use protocols | 100 |
| M825 Test and evaluate life support equipment for compliance to specifications and standards | 100 |
| M736 Analyze and compare customer's ongoing needs with applicable technological changes | 100 |
| M794 Operate laboratory based data acquisition systems, such as strip chart and computer driven recording hardware | 100 |
| M746 Brief research protocol subjects | 100 |
| M823 Select appropriate biomedical instrumentation for research subjects | 100 |
| M811 Prepare research protocols in compliance with animal or human use directives | 100 |
| M801 Perform outside observer functions on research chamber flights | 100 |
| M796 Originate protocols for human and animal research | 100 |
| B248 Recruit volunteers for research protocols | 100 |
| M800 Perform inside observer functions on research chamber flights | 100 |
| M761 Demonstrate current technology to management, interested users, and VIPs | 100 |
| M742 Assist in operation of Doppler ultrasound devices | 100 |
| M777 Document informed consent of research subjects | 100 |
| G514 Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors | 100 |

APPENDIX C

**AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A**

REPRESENTATIVE TASKS PERFORMED BY DAFSC OFFICERS

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APPENDIX C1

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS BY DAFSC 196X (N=65 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| B110 Attend relevant scientific meetings | 86 |
| B235 Prepare charts, graphs, or slides for briefings | 74 |
| B222 Participate in staff meetings or briefings | 71 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 69 |
| D425 Prepare lesson plans | 68 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 68 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 66 |
| E465 Conduct classroom instruction on physics of the atmosphere | 66 |
| E472 Conduct classroom instruction on self-imposed stresses | 65 |
| G526 Perform inside observer functions during hypobaric proficiency flights | 65 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 65 |
| E460 Conduct classroom instruction on human factors | 63 |
| E471 Conduct classroom instruction on respiration and circulation | 63 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 63 |
| E456 Conduct classroom instruction on disorientation | 62 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 62 |
| E464 Conduct classroom instruction on noise effect | 62 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 62 |
| B140 Counsel personnel on career, personal, or military-related problems | 62 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 60 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 58 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 58 |
| D424 Practice classroom presentations | 58 |
| G521 Monitor inside observer position and students during rapid decompression flights | 58 |
| B221 Participate in safety meetings | 58 |
| G522 Monitor serious reactors until arrival of flight surgeon | 58 |
| B242 Proofread correspondence, reports, or forms | 57 |
| A39 Determine work priorities | 57 |
| D361 Conduct facility tours | 57 |

APPENDIX C2

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST 1495A DAFSC OFFICERS (N=10 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|--|-------------------|
| E460 Conduct classroom instruction on human factors | 100 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 100 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 100 |
| E452 Conduct classroom instruction on cockpit task management | 100 |
| E456 Conduct classroom instruction on disorientation | 100 |
| E448 Conduct classroom instruction on aircrew attention management | 100 |
| E464 Conduct classroom instruction on noise effect | 100 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 100 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 100 |
| E465 Conduct classroom instruction on physics of the atmosphere | 100 |
| E471 Conduct classroom instruction on respiration and circulation | 100 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 90 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 90 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 90 |
| E480 Instruct and critique student procedures for treatment of DCS | 90 |
| E472 Conduct classroom instruction on self-imposed stresses | 90 |
| G521 Monitor inside observer position and students during rapid decompression flights | 90 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 90 |
| E475 Demonstrate or operate Barony chairs | 90 |
| E483 Instruct and critique students on performing anti-G straining maneuvers | 80 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 80 |
| E459 Conduct classroom instruction on health and wellness | 80 |
| G522 Monitor serious reactors until arrival of flight surgeon | 80 |
| D425 Prepare lesson plans | 80 |
| E444 Brief or demonstrate rapid decompression techniques | 80 |

APPENDIX C3

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST DAFSC 2295A OFFICERS (N=3 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| E449 Conduct classroom instruction on carbon monoxide poisoning | 100 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 100 |
| E472 Conduct classroom instruction on self-imposed stresses | 100 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 100 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 100 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 100 |
| E464 Conduct classroom instruction on noise effect | 100 |
| E459 Conduct classroom instruction on health and wellness | 100 |
| E460 Conduct classroom instruction on human factors | 100 |
| E456 Conduct classroom instruction on disorientation | 100 |
| E448 Conduct classroom instruction on aircrew attention management | 100 |
| B112 Certify AF Forms 1274 (Physiological Training) | 100 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 100 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 100 |
| E457 Conduct classroom instruction on effects of elevated partial pressures | 100 |
| G513 Brief trainees prior to chamber flights to prevent unwarranted chamber reactions | 100 |
| G525 Perform inside instructor functions in hypobaric chambers | 100 |
| G521 Monitor inside observer position and students during rapid decompression flights | 100 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 100 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 100 |
| D369 Coordinate formal classroom training with appropriate personnel | 100 |
| E465 Conduct classroom instruction on physics of the atmosphere | 100 |
| E471 Conduct classroom instruction on respiration and circulation | 100 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 100 |
| B147 Direct compliance with operational directives | 100 |
| D361 Conduct facility tours | 100 |
| D419 Observe and critique classroom instructions | 100 |
| B110 Attend relevant scientific meetings | 100 |
| G519 Escort chamber reactors to hospital | 100 |
| B92 Approve or disapprove AF Forms 988 (Leave Request/Authorization) | 100 |

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APPENDIX D

**AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A**

**REPRESENTATIVE TASKS BY MAJCOM GROUPS AND
CONUS AND OVERSEAS GROUPS**

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APPENDIX D1

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN USAFA (N=2)

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 100 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 100 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 100 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 100 |
| E472 Conduct classroom instruction on self-imposed stresses | 100 |
| E456 Conduct classroom instruction on disorientation | 100 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 100 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 100 |
| E475 Demonstrate or operate Barany chairs | 100 |
| E460 Conduct classroom instruction on human factors | 100 |
| D425 Prepare lesson plans | 100 |
| D345 Administer tests | 100 |
| D347 Analyze test results | 100 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 100 |
| D346 Advise staff or unit personnel on training matters | 100 |
| D436 Score tests | 100 |
| D387 Develop phase, block, or end of course tests | 100 |
| E465 Conduct classroom instruction on physics of the atmosphere | 100 |
| A75 Prepare agendas for workshops, conferences, or symposiums | 100 |
| B110 Attend relevant scientific meetings | 100 |
| D409 Evaluate and counsel students or trainees on training progress or academic problems | 100 |
| D380 Design student training literature | 100 |
| E464 Conduct classroom instruction on noise effect | 100 |
| D377 Counsel student personnel on military, career, or personal problems | 100 |
| A80 Write replies to matters of command or organizational interests | 100 |
| E452 Conduct classroom instruction on cockpit task management | 100 |
| A57 Evaluate personnel under operational conditions | 100 |
| D420 Oversee student critiques | 100 |
| E459 Conduct classroom instruction on health and wellness | 100 |
| D440 Write test questions, such as for block tests | 100 |
| A35 Determine annual student training requirements | 100 |

APPENDIX D2

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN AETC (N=13)

| <u>TASKS</u> | <u>PMP</u> |
|---|------------|
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 92 |
| D425 Prepare lesson plans | 92 |
| E464 Conduct classroom instruction on noise effect | 92 |
| G521 Monitor inside observer position and students during rapid decompression flights | 92 |
| E472 Conduct classroom instruction on self-imposed stresses | 85 |
| E460 Conduct classroom instruction on human factors | 85 |
| E471 Conduct classroom instruction on respiration and circulation | 85 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 85 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 85 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 85 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 85 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 85 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 85 |
| E465 Conduct classroom instruction on physics of the atmosphere | 85 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 85 |
| E459 Conduct classroom instruction on health and wellness | 77 |
| E483 Instruct and critique students on performing anti-G straining maneuvers | 77 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 77 |
| E456 Conduct classroom instruction on disorientation | 77 |
| E452 Conduct classroom instruction on cockpit task management | 77 |
| E475 Demonstrate or operate Barany chairs | 77 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 77 |
| E448 Conduct classroom instruction on aircrew attention management | 77 |
| E480 Instruct and critique student procedures for treatment of DCS | 77 |
| D345 Administer tests | 77 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 77 |
| G522 Monitor serious reactors until arrival of flight surgeon | 77 |

APPENDIX D3

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN ACC (N=18)

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| B110 Attend relevant scientific meetings | 94 |
| E460 Conduct classroom instruction on human factors | 89 |
| E456 Conduct classroom instruction on disorientation | 89 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 89 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 89 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 89 |
| E464 Conduct classroom instruction on noise effect | 89 |
| E471 Conduct classroom instruction on respiration and circulation | 89 |
| E448 Conduct classroom instruction on aircrew attention management | 83 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 83 |
| E452 Conduct classroom instruction on cockpit task management | 83 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 83 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 83 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 83 |
| E465 Conduct classroom instruction on physics of the atmosphere | 83 |
| E459 Conduct classroom instruction on health and wellness | 78 |
| B235 Prepare charts, graphs, or slides for briefings | 78 |
| E472 Conduct classroom instruction on self-imposed stresses | 78 |
| E483 Instruct and critique students on performing anti-G straining maneuvers | 78 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 78 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 78 |
| E480 Instruct and critique student procedures for treatment of DCS | 78 |
| E451 Conduct classroom instruction on chamber flights | 78 |
| G525 Perform inside instructor functions in hypobaric chambers | 78 |
| D424 Practice classroom presentations | 78 |
| B113 Certify AF Forms 702 (Individual Physiological Training Record) | 78 |
| B221 Participate in safety meetings | 78 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 78 |

APPENDIX D4

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN AMC (N=10)

| <u>TASKS</u> | <u>PMP</u> |
|--|-------------------|
| D361 Conduct facility tours | 100 |
| B235 Prepare charts, graphs, or slides for briefings | 90 |
| B112 Certify AF Forms 1274 (Physiological Training) | 90 |
| E460 Conduct classroom instruction on human factors | 80 |
| E456 Conduct classroom instruction on disorientation | 80 |
| E459 Conduct classroom instruction on health and wellness | 80 |
| E472 Conduct classroom instruction on self-imposed stresses | 80 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 80 |
| E448 Conduct classroom instruction on aircrew attention management | 80 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 80 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 80 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 80 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 80 |
| G513 Brief trainees prior to chamber flights to prevent unwarranted chamber reactions | 80 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 80 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 80 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 80 |
| E464 Conduct classroom instruction on noise effect | 80 |
| G521 Monitor inside observer position and students during rapid decompression flights | 80 |
| D369 Coordinate formal classroom training with appropriate personnel | 80 |
| D378 Critique student test results with students | 80 |
| E471 Conduct classroom instruction on respiration and circulation | 80 |
| E465 Conduct classroom instruction on physics of the atmosphere | 80 |
| B242 Proofread correspondence, reports, or forms | 80 |
| D346 Advise staff or unit personnel on training matters | 80 |
| D419 Observe and critique classroom instructions | 80 |
| B222 Participate in staff meetings or briefings | 80 |
| B110 Attend relevant scientific meetings | 80 |

APPENDIX D5

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN AFMC (N=22)

| <u>TASKS</u> | <u>PMP</u> |
|---|-------------------|
| B110 Attend relevant scientific meetings | 86 |
| B235 Prepare charts, graphs, or slides for briefings | 73 |
| B222 Participate in staff meetings or briefings | 59 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 59 |
| G526 Perform inside observer functions during hypobaric proficiency flights | 59 |
| B140 Counsel personnel on career, personal, or military-related problems | 59 |
| A39 Determine work priorities | 55 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 55 |
| E465 Conduct classroom instruction on physics of the atmosphere | 55 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 55 |
| B93 Approve or disapprove correspondence, such as letters | 55 |
| B277 Write letters of counseling, appreciation, or reprimand | 55 |
| B92 Approve or disapprove AF Forms 988 (Leave Request/Authorization) | 55 |
| B119 Conduct and record personnel counseling sessions | 55 |
| B242 Proofread correspondence, reports, or forms | 50 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 50 |
| A37 Determine budget or financial priorities or requirements | 50 |
| B217 Participate in ad hoc groups, special conferences, or planning committees | 50 |
| M752 Conduct literature reviews | 50 |
| E471 Conduct classroom instruction on respiration and circulation | 50 |
| E472 Conduct classroom instruction on self-imposed stresses | 50 |
| A22 Assign special projects | 50 |
| B280 Write narrative correspondence or reports | 50 |
| B285 Write trip reports | 50 |
| D425 Prepare lesson plans | 50 |
| G514 Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors | 50 |
| D361 Conduct facility tours | 50 |
| B221 Participate in safety meetings | 50 |
| M751 Conduct Human Use protocols | 45 |
| A40 Develop and establish work methods | 45 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 45 |
| B124 Consult with concerned organizations on physiological questions or problems | 45 |

APPENDIX D6

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN USAF (N=4)

| <u>TASKS</u> | <u>PMP</u> |
|---|------------|
| B222 Participate in staff meetings or briefings | 100 |
| A22 Assign special projects | 100 |
| B217 Participate in ad hoc groups, special conferences, or planning committees | 100 |
| B140 Counsel personnel on career, personal, or military-related problems | 100 |
| E460 Conduct classroom instruction on human factors | 75 |
| E448 Conduct classroom instruction on aircrew attention management | 75 |
| E452 Conduct classroom instruction on cockpit task management | 75 |
| A68 Participate in Aircraft Mishap Investigations | 75 |
| A60 Evaluate safety programs | 75 |
| B235 Prepare charts, graphs, or slides for briefings | 75 |
| B109 Assign suspense dates to action items | 75 |
| E456 Conduct classroom instruction on disorientation | 75 |
| A3 Analyze unit plans for effectiveness of unit operations | 75 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 75 |
| A23 Chair ad hoc groups, special conferences, or planning committees | 75 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 75 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 75 |
| B188 Evaluate training charts, graphs, or related training data | 75 |
| E472 Conduct classroom instruction on self-imposed stresses | 75 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 75 |
| A24 Conduct boards, councils, workshops, or seminars | 75 |
| B141 Determine justifications for manning or manpower changes | 75 |
| A2 Analyze manpower utilization data | 75 |
| E465 Conduct classroom instruction on physics of the atmosphere | 75 |
| B280 Write narrative correspondence or reports | 75 |
| A9 Approve or disapprove justifications for manning or manpower changes | 75 |
| D360 Conduct briefings on new training techniques | 75 |
| A17 Approve or disapprove special projects | 75 |
| A6 Approve or disapprove budget and financial expenditures | 75 |
| A80 Write replies to matters of command or organizational interests | 75 |

APPENDIX D7

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PACAF (N=4)

| <u>TASKS</u> | <u>PMP</u> |
|--|-------------------|
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 100 |
| E460 Conduct classroom instruction on human factors | 100 |
| E448 Conduct classroom instruction on aircrew attention management | 100 |
| E456 Conduct classroom instruction on disorientation | 100 |
| D425 Prepare lesson plans | 100 |
| D385 Develop course curricula or plans of instruction (POIs) | 100 |
| E472 Conduct classroom instruction on self-imposed stresses | 100 |
| E452 Conduct classroom instruction on cockpit task management | 100 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 100 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 100 |
| E459 Conduct classroom instruction on health and wellness | 100 |
| D369 Coordinate formal classroom training with appropriate personnel | 100 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 100 |
| D419 Observe and critique classroom instructions | 100 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 100 |
| E471 Conduct classroom instruction on respiration and circulation | 100 |
| E464 Conduct classroom instruction on noise effect | 100 |
| B146 Direct aerospace physiology equipment maintenance or utilization, such as for hyperbaric chamber facilities | 100 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 100 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 100 |
| E457 Conduct classroom instruction on effects of elevated partial pressures | 100 |
| E465 Conduct classroom instruction on physics of the atmosphere | 100 |
| D424 Practice classroom presentations | 100 |
| D405 Endorse AF Forms such as, AF Forms 1274 (Physiological Training) | 100 |
| G521 Monitor inside observer position and students during rapid decompression flights | 100 |
| B221 Participate in safety meetings | 100 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 100 |
| B112 Certify AF Forms 1274 (Physiological Training) | 100 |
| G517 Critique chamber flight lecturers | 100 |

APPENDIX D8

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN AF ELEMENT OTHER (N=5)

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| M821 Review and collate data for research publications | 100 |
| A74 Plan or provide input to facility layout plans | 100 |
| A75 Prepare agendas for workshops, conferences, or symposiums | 100 |
| A58 Evaluate procedures for storage or inventory of property items | 100 |
| M813 Present lectures, reports, or papers on research investigations at scientific meetings | 100 |
| M824 Submit manuscripts for publication in Scientific Journals or Texts | 100 |
| A40 Develop and establish work methods | 100 |
| A52 Evaluate and select individuals for specialized training | 100 |
| B83 Administer use of personnel, workspace, equipment, or supplies | 100 |
| B229 Prepare abstracts for scientific meetings | 100 |
| A38 Determine requirements for personnel, workspace, equipment, or supplies | 100 |
| B81 Act as officer-in-charge (OIC) during equipment evaluation dives | 100 |
| A60 Evaluate safety programs | 100 |
| B235 Prepare charts, graphs, or slides for briefings | 100 |
| A39 Determine work priorities | 100 |
| B110 Attend relevant scientific meetings | 100 |
| M791 Monitor ongoing research protocols | 100 |
| B122 Conduct staff meetings | 100 |
| B251 Review and approve presentations for scientific meetings | 100 |
| M788 Monitor clinical and research related grants or gifts programs | 100 |
| B252 Review and approve scientific papers prior to publication | 100 |
| A24 Conduct boards, councils, workshops, or seminars | 100 |
| B147 Direct compliance with operational directives | 100 |
| A10 Approve or disapprove justifications for new or additional facilities or equipment | 100 |
| A20 Approve or disapprove unit regulations, OIs, or SOPs | 100 |
| G515 Conduct hypobaric chamber team training | 100 |
| B146 Direct aerospace physiology equipment maintenance or utilization, such as for hyperbaric chamber facilities | 100 |
| G520 Monitor chamber inside and outside observer positions during proficiency flights | 100 |
| B124 Consult with concerned organizations on physiological questions or problems | 100 |

APPENDIX D9

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS (OVERSEAS - N=10)

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| B217 Participate in ad hoc groups, special conferences, or planning committees | 90 |
| A17 Approve or disapprove special projects | 80 |
| E460 Conduct classroom instruction on human factors | 80 |
| E448 Conduct classroom instruction on aircrew attention management | 80 |
| E456 Conduct classroom instruction on disorientation | 80 |
| E452 Conduct classroom instruction on cockpit task management | 80 |
| E472 Conduct classroom instruction on self-imposed stresses | 80 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 80 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 80 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 80 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 80 |
| E465 Conduct classroom instruction on physics of the atmosphere | 80 |
| B221 Participate in safety meetings | 80 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 80 |
| G517 Critique chamber flight lecturers | 80 |
| A6 Approve or disapprove budget and financial expenditures | 70 |
| B110 Attend relevant scientific meetings | 70 |
| B285 Write trip reports | 70 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 70 |
| A3 Analyze unit plans for effectiveness of unit operations | 70 |
| B222 Participate in staff meetings or briefings | 70 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 70 |
| E449 Conduct classroom instruction on carbon monoxide poisoning rapid decompression flights | 70 |
| B116 Certify starting or stopping of hazardous duty incentive pay for team members | 70 |
| G513 Brief trainees prior to chamber flights to prevent unwarranted chamber reactions | 70 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 70 |
| D361 Conduct facility tours | 70 |
| G511 Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAL) flights | 70 |
| B282 Write point, position, or talking papers | 70 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 70 |
| A22 Assign special projects | 60 |
| A37 Determine budget or financial priorities or requirements | 60 |

APPENDIX D10

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS (IN CONUS - N=68)

| <u>TASKS</u> | <u>PMP</u> |
|---|------------|
| B110 Attend relevant scientific meetings | 81 |
| B235 Prepare charts, graphs, or slides for briefings | 75 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 74 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 72 |
| E465 Conduct classroom instruction on physics of the atmosphere | 71 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 69 |
| E471 Conduct classroom instruction on respiration and circulation | 69 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 69 |
| E460 Conduct classroom instruction on human factors | 68 |
| E472 Conduct classroom instruction on self-imposed stresses | 68 |
| E464 Conduct classroom instruction on noise effect | 68 |
| D425 Prepare lesson plans | 68 |
| E456 Conduct classroom instruction on disorientation | 66 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 66 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 66 |
| B222 Participate in staff meetings or briefings | 65 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 63 |
| G521 Monitor inside observer position and students during rapid decompression flights | 63 |
| G526 Perform inside observer functions during hypobaric proficiency flights | 62 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 62 |
| G522 Monitor serious reactors until arrival of flight surgeon | 62 |
| E459 Conduct classroom instruction on health and wellness | 60 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 60 |
| B140 Counsel personnel on career, personal, or military-related problems | 60 |
| E448 Conduct classroom instruction on aircrew attention management | 59 |
| B242 Proofread correspondence, reports, or forms | 59 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 59 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 57 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 57 |

APPENDIX E

**AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A**

**REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST
OFFICERS BY PAYGRADE GROUPS**

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APPENDIX E1

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 01 (N=5 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 80 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 80 |
| D425 Prepare lesson plans | 60 |
| B169 Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record) | 60 |
| B112 Certify AF Forms 1274 (Physiological Training) | 60 |
| B113 Certify AF Forms 702 (Individual Physiological Training Record) | 60 |
| B222 Participate in staff meetings or briefings | 60 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 60 |
| D422 Participate in classroom proficiency training | 60 |
| G525 Perform inside instructor functions in hypobaric chambers | 60 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 60 |
| E465 Conduct classroom instruction on physics of the atmosphere | 60 |
| B221 Participate in safety meetings | 60 |
| B224 Perform escort duties for DVs, such as greeting at flight line or escorting to designated site visits | 40 |
| D359 Complete inprocessing or outprocessing training checklists | 40 |
| E457 Conduct classroom instruction on effects of elevated partial pressures | 40 |
| A39 Determine work priorities | 40 |
| D369 Coordinate formal classroom training with appropriate personnel | 40 |
| B277 Write letters of counseling, appreciation, or reprimand | 40 |
| B109 Assign suspense dates to action items | 40 |
| B110 Attend relevant scientific meetings | 40 |
| M800 Perform inside observer functions on research chamber flights | 40 |
| M742 Assist in operation of Doppler ultrasound devices | 40 |
| D410 Evaluate course outlines, lesson plans, or presentation methods | 40 |
| B188 Evaluate training charts, graphs, or related training data | 40 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 40 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 40 |
| E472 Conduct classroom instruction on self-imposed stresses | 40 |
| E471 Conduct classroom instruction on respiration and circulation | 40 |
| E459 Conduct classroom instruction on health and wellness | 40 |

APPENDIX E2

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS PAYGRADE 02 (N=13 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|---|-------------------|
| E472 Conduct classroom instruction on self-imposed stresses | 92 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 92 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 92 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 92 |
| E465 Conduct classroom instruction on physics of the atmosphere | 92 |
| E471 Conduct classroom instruction on respiration and circulation | 92 |
| E460 Conduct classroom instruction on human factors | 85 |
| E459 Conduct classroom instruction on health and wellness | 85 |
| E456 Conduct classroom instruction on disorientation | 85 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 85 |
| B235 Prepare charts, graphs, or slides for briefings | 85 |
| G526 Perform inside observer functions during hypobaric proficiency flights | 85 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 85 |
| D425 Prepare lesson plans | 85 |
| E464 Conduct classroom instruction on noise effect | 85 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 85 |
| B113 Certify AF Forms 702 (Individual Physiological Training Record) | 85 |
| D369 Coordinate formal classroom training with appropriate personnel | 85 |
| B169 Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record) | 85 |
| D405 Endorse AF Forms such as, AF Forms 1274 (Physiological Training) | 85 |
| E451 Conduct classroom instruction on chamber flights | 85 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 77 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 77 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 77 |
| E480 Instruct and critique student procedures for treatment of DCS | 77 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 77 |
| G513 Brief trainees prior to chamber flights to prevent unwarranted chamber reactions | 77 |

APPENDIX E3

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 03 (N=26 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| B110 Attend relevant scientific meetings | 85 |
| E471 Conduct classroom instruction on respiration and circulation | 69 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 69 |
| E467 Conduct classroom instruction on principles and problems associated with vision, including night vision | 69 |
| E464 Conduct classroom instruction on noise effect | 69 |
| B235 Prepare charts, graphs, or slides for briefings | 69 |
| E465 Conduct classroom instruction on physics of the atmosphere | 69 |
| E460 Conduct classroom instruction on human factors | 65 |
| E472 Conduct classroom instruction on self-imposed stresses | 65 |
| E462 Conduct classroom instruction on mechanical effects of pressure changes | 65 |
| E456 Conduct classroom instruction on disorientation | 62 |
| B222 Participate in staff meetings or briefings | 62 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 62 |
| E448 Conduct classroom instruction on aircrew attention management | 58 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 58 |
| E481 Instruct and critique student procedures for treatment of hyperventilation | 58 |
| E482 Instruct and critique student procedures for treatment of hypoxia | 58 |
| G521 Monitor inside observer position and students during rapid decompression flights | 58 |
| E449 Conduct classroom instruction on carbon monoxide poisoning | 58 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 58 |
| D361 Conduct facility tours | 58 |
| E459 Conduct classroom instruction on health and wellness | 54 |
| G526 Perform inside observer functions during hypobaric proficiency flights | 54 |
| E457 Conduct classroom instruction on effects of elevated partial pressures | 54 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 54 |
| G525 Perform inside instructor functions in hypobaric chambers | 54 |
| D425 Prepare lesson plans | 54 |
| G522 Monitor serious reactors until arrival of flight surgeon | 54 |
| E480 Instruct and critique student procedures for treatment of DCS | 50 |

APPENDIX E4

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 04 (N=9 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|---|------------|
| B277 Write letters of counseling, appreciation, or reprimand | 83 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 78 |
| B242 Proofread correspondence, reports, or forms | 78 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 78 |
| B235 Prepare charts, graphs, or slides for briefings | 78 |
| B110 Attend relevant scientific meetings | 78 |
| B140 Counsel personnel on career, personal, or military-related problems | 78 |
| B93 Approve or disapprove correspondence, such as letters | 72 |
| A39 Determine work priorities | 72 |
| B282 Write point, position, or talking papers | 72 |
| A47 Endorse and upchannel enlisted performance reports (EPRs) | 72 |
| B174 Evaluate and upchannel staff documents, such as point, position, or talking papers | 72 |
| A57 Evaluate personnel under operational conditions | 72 |
| A37 Determine budget or financial priorities or requirements | 72 |
| B122 Conduct staff meetings | 72 |
| B119 Conduct and record personnel counseling sessions | 72 |
| B92 Approve or disapprove AF Forms 988 (Leave Request/Authorization) | 72 |
| E461 Conduct classroom instruction on hypoxia and hyperventilation | 67 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 67 |
| A4 Approve and upchannel awards and decoration recommendation, such as AF Commendation or AF Meritorious Service Medals | 67 |
| D425 Prepare lesson plans | 67 |
| B112 Certify AF Forms 1274 (Physiological Training) | 67 |
| A80 Write replies to matters of command or organizational interests | 67 |
| G521 Monitor inside observer position and students during rapid decompression flights | 67 |
| B170 Evaluate and submit individuals or units for awards or decorations | 67 |
| B124 Consult with concerned organizations on physiological questions or problems | 67 |
| B142 Develop and upchannel organizational policies, OIs, or SOPs | 67 |
| B200 Interpret policies, directives, or procedures for subordinates | 67 |
| A45 Elevate major discrepancies or unresolvable problems to designated higher level personnel | 67 |
| B97 Approve or disapprove leaves or passes | 67 |
| B98 Approve or disapprove letters of appreciation or reprimand | 67 |
| G526 Perform inside observer functions during hypobaric proficiency flights | 61 |
| E460 Conduct classroom instruction on human factors | 61 |

APPENDIX E5

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 05 (N=9 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|--|------------|
| B122 Conduct staff meetings | 100 |
| B280 Write narrative correspondence or reports | 100 |
| B140 Counsel personnel on career, personal, or military-related problems | 100 |
| B281 Write OPRs | 100 |
| A20 Approve or disapprove unit regulations, OIs, or SOPs | 100 |
| B116 Certify starting or stopping of hazardous duty incentive pay for team members | 100 |
| B92 Approve or disapprove AF Forms 988 (Leave Request/Authorization) | 100 |
| B97 Approve or disapprove leaves or passes | 100 |
| A49 Establish and administer procedures for implementation of programs, policies, or plans | 89 |
| A12 Approve or disapprove organizational policies, operating instructions (OIs), or standard operating procedures (SOPs) | 89 |
| A6 Approve or disapprove budget and financial expenditures | 89 |
| A47 Endorse and upchannel enlisted performance reports (EPRs) | 89 |
| B217 Participate in ad hoc groups, special conferences, or planning committees | 89 |
| A37 Determine budget or financial priorities or requirements | 89 |
| B147 Direct compliance with operational directives | 89 |
| A39 Determine work priorities | 89 |
| A48 Endorse and upchannel officer performance reports (OPRs) | 89 |
| B93 Approve or disapprove correspondence, such as letters | 89 |
| A16 Approve or disapprove replies to matters of command or organizational interests | 89 |
| B143 Develop organizational or functional lines of responsibility for personnel | 89 |
| B119 Conduct and record personnel counseling sessions | 89 |
| A14 Approve or disapprove personnel for TDYs | 89 |
| B110 Attend relevant scientific meetings | 89 |
| D425 Prepare lesson plans | 78 |
| E455 Conduct classroom instruction on decompression sickness (DCS) | 78 |
| B200 Interpret policies, directives, or procedures for subordinates | 78 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 78 |
| A3 Analyze unit plans for effectiveness of unit operations | 78 |
| B235 Prepare charts, graphs, or slides for briefings | 78 |
| B84 Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns | 78 |
| B109 Assign suspense dates to action items | 78 |
| G514 Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors | 78 |
| A23 Chair ad hoc groups, special conferences, or planning committees | 78 |
| B275 Write EPRs | 78 |

APPENDIX E6

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 06 (N=7 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>PMP</u> |
|---|-------------------|
| A16 Approve or disapprove replies to matters of command or organizational interests | 100 |
| B124 Consult with concerned organizations on physiological questions or problems | 100 |
| D346 Advise staff or unit personnel on training matters | 100 |
| B280 Write narrative correspondence or reports | 100 |
| A2 Analyze manpower utilization data | 100 |
| A3 Analyze unit plans for effectiveness of unit operations | 100 |
| A28 Consolidate and upchannel input for command or organizational budget and financial expenditures | 100 |
| B282 Write point, position, or talking papers | 100 |
| A10 Approve or disapprove justifications for new or additional facilities or equipment | 100 |
| A6 Approve or disapprove budget and financial expenditures | 100 |
| B84 Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns | 100 |
| B111 Brief changes to higher headquarters plans | 100 |
| A53 Evaluate and upchannel justifications for manning or manpower changes | 100 |
| B222 Participate in staff meetings or briefings | 100 |
| B136 Coordinate questions of policy or procedures with Air Staff, MAJCOM, or other designated agencies | 100 |
| E460 Conduct classroom instruction on human factors | 100 |
| B110 Attend relevant scientific meetings | 100 |
| A22 Assign special projects | 100 |
| E442 Brief aircrew students on safety precautions associated with flying and life support equipment | 100 |
| D385 Develop course curricula or plans of instruction (POIs) | 100 |
| B256 Review and upchannel recommendations or changes in procedures or policies to higher headquarters | 100 |
| A52 Evaluate and select individuals for specialized training | 100 |
| E472 Conduct classroom instruction on self-imposed stresses | 100 |
| E456 Conduct classroom instruction on disorientation | 100 |
| E446 Conduct classroom instruction on acceleration and anti-G clothing and equipment | 100 |
| D349 Approve or disapprove formal school forecasts | 100 |
| A1 Advise higher headquarters, wing, base commander, or key personnel of serious incidents | 100 |
| G525 Perform inside instructor functions in hypobaric chambers | 100 |
| E444 Brief or demonstrate rapid decompression techniques during chamber flights | 100 |
| G512 Assist in treatment of chamber reactors with evolved gas disorders | 100 |
| G510 Advise inside observers of appropriate treatment measures for reactors | 100 |

APPENDIX F

**AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A**

**REPRESENTATIVE TASKS NOT MATCHED TO COURSE TRAINING
STANDARDS WITH HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
AND FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))**

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APPENDIX F

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| <u>TASKS</u> | <u>TNG</u> | | <u>1ST</u> | |
|---|------------|------------|-------------|--------------|
| | <u>EMP</u> | <u>JOB</u> | <u>ASMT</u> | <u>(PMP)</u> |
| E457 Conduct classroom instruction on effects of elevated partial pressures | 6.86 | 54 | 44 | |
| E453 Conduct classroom instruction on compression physics, such as hyperbarics and other hyperbaric technology topics | 6.18 | 26 | 33 | |
| G511 Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAC) | 5.64 | 46 | 50 | |
| E447 Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge | 5.45 | 10 | 6 | |
| E450 Conduct classroom instruction on centrifuge profiles | 4.59 | 13 | 6 | |
| <hr/> VERY HIGH TE - 2 SD (4.44) <hr/> | | | | |
| H566 Respond to chamber related physiological adverse reactions, such as hypoglycemia episodes or oxygen toxicity reactions | 4.36 | 18 | 28 | |
| H562 Perform inside attendant functions on hyperbaric chamber dives | 4.32 | 28 | 28 | |
| E458 Conduct classroom instruction on experimental aspects of hyperbaric oxygen | 4.14 | 26 | 22 | |
| H565 Perform team chief functions during chamber training and proficiency dives | 4.05 | 26 | 28 | |
| H558 Perform chamber emergency dive team member functions | 3.91 | 31 | 28 | |
| G517 Critique chamber flight lecturers | 3.86 | 51 | 44 | |
| D422 Participate in classroom proficiency training | 3.77 | 38 | 33 | |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG | 1ST | 1ST |
|--|-------|-------|-------|
| | EMP | JOB | ASMT |
| | (PMP) | (PMP) | (PMP) |
| H563 Perform inside patient attendant functions during hyperbaric chamber dives | 3.73 | 8 | 6 |
| H528 Brief individuals on chamber operations and policies | 3.68 | 33 | 28 |
| G518 Critique chamber proficiency training flights with team members | 3.64 | 33 | 28 |
| D378 Critique student test results with students | 3.41 | 49 | 56 |
| E473 Conduct classroom instruction on USAF Hyperbaric Therapy Programs - Future and Past | 3.41 | 8 | 6 |
| H559 Perform chamber operator functions on hyperbaric chamber dives | 3.32 | 23 | 28 |
| B81 Act as officer-in-charge (OIC) during equipment evaluation dives | 3.18 | 28 | 44 |
| H564 Perform lock operator functions on hyperbaric chamber dives | 3.14 | 15 | 11 |
| K689 Maintain proficiency and currency in cardiopulmonary resuscitation (CPR) techniques | 3.09 | 18 | 11 |
| H540 Direct emergency hyperbaric chamber proficiency training | 3.05 | 26 | 33 |
| E470 Conduct classroom instruction on principles of flight training | 3.00 | 8 | 0 |
| G519 Escort chamber reactors to hospital | 3.00 | 33 | 28 |
| I596 Perform OIC functions on PFT teams | 2.95 | 13 | 11 |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

1ST 1ST
TNG JOB ASMT
EMP (PMP) (PMP)

TASKS

F3

HIGH TE - 1 SD (2.93)

| | | | | |
|------|--|------|----|----|
| E468 | Conduct classroom instruction on principles of aircraft navigation and weather | 2.91 | 13 | 0 |
| E469 | Conduct classroom instruction on principles of flight | 2.91 | 8 | 0 |
| H560 | Perform crew chief functions on hyperbaric chamber dives | 2.86 | 15 | 17 |
| B275 | Write EPRs | 2.82 | 28 | 11 |
| E485 | Instruct or demonstrate water survival procedures in which pressure suits are not worn | 2.77 | 0 | 0 |
| J631 | Instruct High Altitude Life Support System Survival Orientation courses | 2.73 | 3 | 6 |
| B116 | Certify starting or stopping of hazardous duty incentive pay for team members | 2.68 | 28 | 11 |
| D426 | Prepare training schedules | 2.68 | 31 | 39 |
| E484 | Instruct or demonstrate water survival procedures in which pressure suit assemblies are worn | 2.68 | 3 | 6 |
| B194 | Implement total quality management (TQM) programs | 2.59 | 31 | 33 |
| C303 | Develop unit or organizational quality control (QC) programs | 2.59 | 21 | 22 |
| I594 | Oversee descent and landing techniques training | 2.59 | 13 | 11 |
| A70 | Participate in mishap investigations, other than aircraft accidents or incidents | 2.50 | 3 | 6 |
| B89 | Approve and upchannel AF Forms 700 (Physiological Training Monthly Report) | 2.45 | 26 | 17 |
| J630 | Instruct basic fighter transition (BFT) courses | 2.45 | 5 | 0 |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|--|------|---------------------|----------------------|
| | EMP | | |
| D405 Endorse AF Forms such as, AF Forms 1274 (Physiological Training) | 2.41 | 54 | 56 |
| K666 Assume supervision of centrifuge reactors prior to flight surgeon or emergency medical team support | 2.41 | 5 | 0 |
| B281 Write OPRs | 2.32 | 18 | 6 |
| C311 Direct special inspections of hyperbaric chamber equipment and assemblies | 2.32 | 10 | 17 |
| G516 Coordinate crewmember integration checks with appropriate personnel | 2.32 | 18 | 6 |
| K669 Conduct remedial G-situational awareness (SA) training for centrifuge qualification students | 2.32 | 5 | 0 |
| A47 Endorse and upchannel enlisted performance reports (EPRs) | 2.27 | 31 | 17 |
| B119 Conduct and record personnel counseling sessions | 2.27 | 38 | 28 |
| K674 Debrief centrifuge students on G-load and G-suit pressures with annotated strip-charts | 2.27 | 5 | 0 |
| D369 Coordinate formal classroom training with appropriate personnel | 2.23 | 62 | 61 |
| E479 Indoctrate aircrews on associated procedures of chemical defense equipment | 2.23 | 3 | 0 |
| K667 Brief profiles and standardized procedures used during centrifuge qualification runs | 2.23 | 3 | 0 |
| A20 Approve or disapprove unit regulations, OIs, or SOPs | 2.18 | 28 | 22 |
| B117 Complete accident or incident report forms | 2.18 | 15 | 17 |
| B141 Determine justifications for manning or manpower changes | 2.18 | 10 | 0 |
| E477 Document classroom instruction on aircrew member's self-first aid training | 2.18 | 3 | 0 |
| I598 Verify weather conditions prior to departure to PFT area | 2.18 | 15 | 17 |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST | | 1ST ASMT (PMP) |
|---|------------|--------------|----|----------------------|
| | | JOB (PMP) | | |
| J607 Coordinate flight surgeon participation in MEDEVAC flights with appropriate personnel | 2.18 | 10 | 11 | |
| J634 Instruct Pilot Protection Assembly (PPA) training courses, such as original or refresher U-2 Courses | 2.18 | 8 | 6 | |
| B191 Implement Safety Programs | 2.14 | 18 | 22 | |
| H561 Perform designated consultant functions for military and civilian hyperbaric chamber procedures and concerns | 2.14 | 8 | 11 | |
| K676 Direct cessation of centrifuge runs for student techniques, safety concerns, or emergencies | 2.14 | 5 | 0 | |
| K693 Perform centrifuge aerospace physiologist (CAP) functions during centrifuge profiles | 2.14 | 5 | 0 | |
| B260 Review training evaluations | 2.09 | 23 | 22 | |
| B262 Schedule annual student training | 2.09 | 26 | 22 | |
| H543 Direct periodic air samplings in compressed air accumulators | 2.09 | 10 | 11 | |
| B159 Direct proficiency training in use of approved USAF Hyperbaric Medicine Program treatment table (dive profile) | 2.05 | 33 | 39 | |
| D346 Advise staff or unit personnel on training matters | 2.05 | 44 | 50 | |
| D381 Determine if training for assigned courses follows established policies and directives | 2.05 | 23 | 28 | |
| D428 Provide input for training manual updates | 2.05 | 18 | 33 | |
| I582 Conduct classroom instruction on principles of aircraft instruments | 2.05 | 3 | 0 | |
| A26 Conduct routine or onspot checks of units, such as hyperbaric chambers | 2.00 | 8 | 11 | |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|--|------|---------------------|----------------------|
| | | | |
| B227 Plan safety programs | 2.00 | 13 | 17 |
| B239 Prepare recommendations for changes to unit instructor guides | 2.00 | 33 | 33 |
| H530 Chart step-by-step action and time lines for hyperbaric dives | 2.00 | 8 | 0 |
| B277 Write letters of counseling, appreciation, or reprimand | 1.95 | 38 | 39 |
| D363 Conduct inservice training sessions | 1.95 | 31 | 44 |
| D402 Direct physiological training programs, such as for hypobaric technology | 1.95 | 3 | 0 |
| K665 Assist physician with crash cart equipment during medical emergencies | 1.95 | 5 | 0 |
| B145 Develop unit self-inspection checklists | 1.91 | 21 | 11 |
| B271 Verify posting of emergency procedures signs | 1.91 | 28 | 33 |
| C301 Critique corrective actions for resolution of discrepancies identified in inspections or evaluations | 1.91 | 15 | 6 |
| J628 Instruct aircrew training for physiological support division (PSD) staff | 1.91 | 3 | 6 |
| B137 Coordinate questions on class scheduling with concerned organizations | 1.86 | 38 | 39 |
| C327 Perform daily and periodic inspections of hyperbaric chamber fire suppression systems | 1.86 | 5 | 6 |
| H529 Certify monthly hyperbaric dive and patient statistical summary reports | 1.86 | 10 | 6 |
| B155 Direct maintenance of treatment records, such as AF Forms (Hyperbaric Patient Information and Therapy Record) | 1.82 | 18 | 22 |
| I590 Direct positioning of PFT launch and landing zones | 1.82 | 5 | 6 |
| K668 Complete and certify student centrifuge data card during centrifuge qualification runs | 1.82 | 5 | 0 |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|--|------------|---------------------|----------------------|
| | | | |
| B153 Direct maintenance of records on status of inspections of equipment | 1.77 | 21 | 22 |
| B233 Prepare AF Forms 932 (NCO Performance Feedback Worksheet) | 1.77 | 21 | 11 |
| C313 Document and address hyperbaric Quality Assurance/Resource Management (QA/RM) issues at monthly meetings | 1.77 | 18 | 22 |
| D439 Write requests for copyright releases | 1.77 | 3 | 6 |
| H551 Notify HQ USAF/SGPA, MAJCOM/SG, and AL/AOH of suspension of hyperbaric operations | 1.77 | 13 | 11 |
| J653 Perform high-altitude training flights | 1.77 | 5 | 6 |
| K671 Conduct team code training for initial and proficiency training, such as Code Blue | 1.77 | 8 | 0 |
| L720 Maintain flying efficiency in instructional aircraft | 1.77 | 3 | 6 |
| A36 Determine annual student training schedules | 1.73 | 28 | 28 |
| D365 Conduct periodic checks of qualified team members' proficiency | 1.73 | 41 | 44 |
| D409 Evaluate and counsel students or trainees on training progress or academic problems | 1.73 | 18 | 17 |
| F503 Oversee removal or replacement of oxygen mask components and associated assemblies | 1.73 | 0 | 0 |
| H570 Schedule and monitor tests of pressure in hyperbaric chambers | 1.73 | 8 | 6 |
| I583 Conduct classroom instruction on swing landings | 1.73 | 0 | 0 |
| I595 Oversee fitting of parasail harnesses | 1.73 | 3 | 0 |
| I597 Perform various related crew positions on PFT teams, such as canopy assistant or release operator | 1.73 | 13 | 17 |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG EMP | 1ST JOB (PMP) | 1ST ASMT (PMP) |
|---|------------|---------------------|----------------------|
| | | | |
| A3 Analyze unit plans for effectiveness of unit operations | 1.68 | 21 | 11 |
| A6 Approve or disapprove budget and financial expenditures | 1.68 | 15 | 6 |
| A57 Evaluate personnel under operational conditions | 1.68 | 33 | 28 |
| B232 Prepare AF Forms 931 (Airman Performance Feedback Worksheet) | 1.68 | 3 | 6 |
| B242 Proofread correspondence, reports, or forms | 1.68 | 46 | 39 |
| C293 Conduct safety inspections, briefings, or debriefings | 1.68 | 18 | 11 |
| J619 Direct 911X0 and 122X0 personnel during high altitude training flights | 1.68 | 8 | 6 |
| L705 Advise aircraft commander on disposition of flight reactors | 1.68 | 3 | 6 |
| M751 Conduct Human Use protocols | 1.68 | 5 | 6 |
| A41 Develop and upchannel multiyear equipment acquisition plans | 1.64 | 13 | 6 |
| B166 Establish indoctrination programs for newly assigned personnel | 1.64 | 15 | 11 |
| C286 Analyze inspection reports or procedures | 1.64 | 15 | 11 |
| C310 Direct special inspections of full pressure suits and associated assemblies | 1.64 | 3 | 0 |
| C314 Document results of inspections and evaluations | 1.64 | 13 | 11 |
| H542 Direct loading or unloading of patients to or from hyperbaric chambers | 1.64 | 21 | 28 |
| H552 Notify USAF Hyperbaric Center upon election of hyperbaric oxygen therapy treatment for acute-disorder patients | 1.64 | 13 | 17 |
| H567 Review and implement resolutions to problems elevated to MTF QA/RM Committee | 1.64 | 8 | 11 |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | TNG | 1ST | |
|--|------|-----------|------------|
| | | JOB (PMP) | ASMT (PMP) |
| J604 Conduct classroom instructions for full pressure suit training | 1.64 | 5 | 6 |
| J652 Perform high-altitude rapid decompression training | 1.64 | 13 | 11 |
| K664 Annotate strip chart of G-load and G-pressure suit pressures during centrifuge qualification runs | 1.64 | 5 | 0 |
| A1 Advise higher headquarters, wing, base commander, or key personnel of serious incidents | 1.59 | 26 | 28 |
| B142 Develop and upchannel organizational policies, OIs, or SOPs | 1.59 | 36 | 28 |
| D352 Approve or disapprove recommendations for changes to unit instructor guides | 1.59 | 26 | 22 |
| D353 Approve or disapprove student training literature | 1.59 | 26 | 28 |
| J603 Conduct classroom instruction for Instructor Qualification Training courses | 1.59 | 0 | 0 |
| A48 Endorse and upchannel officer performance reports (OPRs) | 1.55 | 18 | 6 |
| B208 Manage computer resources | 1.55 | 28 | 28 |
| B258 Review completeness and accuracy of personnel folders | 1.55 | 18 | 17 |
| B279 Write military job descriptions | 1.55 | 8 | 0 |
| D358 Brief personnel on changes in training methods or procedures | 1.55 | 28 | 28 |
| D406 Establish instructor committees for editing, reorganizing, and writing course materials | 1.55 | 18 | 22 |
| D414 Evaluate proficiency of upgrade personnel prior to certification | 1.55 | 18 | 17 |
| D415 Evaluate training methods, techniques, programs, or requirements | 1.55 | 26 | 17 |
| D441 Write training reports | 1.55 | 5 | 6 |
| J605 Conduct specialized pressure suit operational use testing | 1.55 | 0 | 0 |

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY
WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

| TASKS | | TNG | 1ST | | 1ST |
|-------|--|------|-------|-------|-------|
| | | | EMP | JOB | ASMT |
| | | | (PMP) | (PMP) | (PMP) |
| B173 | Evaluate and upchannel hazardous duty orders for duty | 1.50 | 18 | 11 | 11 |
| D357 | Audit training products | 1.50 | 18 | 11 | 11 |
| D407 | Establish study reference files | 1.50 | 10 | 17 | 17 |
| H537 | Coordinate transportation for patients to and from hyperbaric treatments with designated personnel | 1.50 | 10 | 11 | 11 |
| L721 | Observe aircrew and parachutists during flights | 1.50 | 3 | 6 | 6 |
| B147 | Direct compliance with operational directives | 1.45 | 36 | 28 | 28 |
| C304 | Direct completion of corrective actions on inspection, standardization, or evaluation reports | 1.45 | 21 | 11 | 11 |
| D366 | Conduct qualification training for newly assigned officers | 1.45 | 31 | 28 | 28 |
| D373 | Coordinate training matters with unit branches and staff | 1.45 | 21 | 17 | 17 |
| F497 | Oversee assembly and fitting of crewmembers' life support equipment | 1.45 | 0 | 0 | 0 |
| H541 | Direct general maintenance on hyperbaric chamber assemblies, such as charging of compressed air flasks | 1.45 | 8 | 17 | 17 |
| I592 | Instruct principles and procedures of parasailing | 1.45 | 0 | 0 | 0 |
| J608 | Design and produce training aids, such as instructional tapes or video cassette recorders (VCRs) | 1.45 | 8 | 11 | 11 |

AVERAGE TO ABOVE AVERAGE (MEAN - 1.42)

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS TASKS NOT MATCHED TO CTS ELEMENTS

FORMULA.... TRAINING EMPHASIS DATA: When a given task has an assigned TE rating greater than or equal to sum of the Mean value (1.42), plus 1 SD (1.51), these tasks merit strong consideration for inclusion in some form of structured training for first-assignment officers.

MEAN TO 1 S.D. (1.42 TO 1.51) = AVERAGE TO ABOVE AVERAGE TE
MEAN PLUS 1 S.D. (2.93) = HIGH TE
MEAN PLUS 2 S.D. (4.44) = VERY HIGH TE

APPENDIX F (CONTINUED)

**AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS**

Tasks with a TE rating of 1.42 (Mean Value) and above which were not matched with CTS items are included in this section. These unmatched tasks with corresponding percent time spent on tasks by First Job and First Assignment should be carefully reviewed to identify new areas which may warrant inclusion in future CTSs. (For complete list of tasks not matched with CTS items see Training Extract). Contact USAFOMS/OMYA at DSN 487-3694, for assistance in interpretation of this printout.